

A61M

DEVICES FOR INTRODUCING MEDIA INTO, OR ONTO, THE BODY (introducing media into or onto the bodies of animals A61D7/00; means for inserting tampons A61F13/26; devices for administering food or medicines orally A61J; containers for collecting, storing or administering blood or medical fluids A61J1/05); DEVICES FOR TRANSDUCING BODY MEDIA OR FOR TAKING MEDIA FROM THE BODY (surgery A61B; chemical aspects of surgical articles A61L); DEVICES FOR PRODUCING OR ENDING SLEEP OR STUPOR

Definition statement

This subclass/group covers:

Devices or processes specially adapted to be used to insert or place media into human bodies (e.g., pumps, syringes, atomisers, insufflators, inhalers) and that do so either

- by an artificial method (i.e., a human created or contrived method that cannot occur naturally such as hypodermic-syringe injections) or
- by enhancing a naturally occurring method (e.g., inhalers used in conjunction with normal breathing) other than oral..

Devices or processes specially adapted to be used to place media upon human bodies (e.g., percutaneous devices, radioactive dressings) and that do so either

- by an artificial method or
- by enhancing a naturally occurring method (e.g., standard absorption, rubbing substances onto skin).

Devices or processes which are specially adapted to be used to direct, lead, convey, or carry media up to, away from, or within human bodies (e.g., tubes for carrying oxygen, medical pumps, artificial hearts, mechanical blood circulatory assistors, blood oxygenation devices, devices for artificial respiration by treatment with gas or air) and that do so either

- by an artificial method (e.g., dialysis systems) or
- by enhancing a naturally occurring method (e.g., standard circulation of blood, standard discharging of bodily waste).

Devices or processes specially adapted to be used to remove, eject, or expel media from human bodies (e.g., suction type breast relievers, discharge draining devices for wounds) and that do so

- by an artificial method (e.g., subaquatic intestinal cleaning systems) or
- by enhancing a naturally occurring method (e.g., babies sucking on breast, boils natural discharging).

Devices or processes specially adapted to cause or provoke a change in the state of consciousness of humans (e.g., induce sleep, fully awaken) and that do so in a manner other than one which commonly occurs (e.g., falling asleep on a good mattress, physical exhaustion).

Devices or processes specially adapted to increase or decrease the mental activity of humans while awake (e.g., relax, stimulate) and that do so in a manner other than that which commonly occurs (e.g., creating boredom, reading long definitions).

Accessories specially adapted for use with at least one of the above devices and that contribute to the effectiveness or safety of the device or its use.

Specially adapted components having structural features limiting them to use with a device of one of the types specified above.

Relationship between large subject matter areas

When used with animals

If a device or process is usable for both humans and animals for the same purpose and in the same manner, and it is otherwise proper for this subclass, classification is made only in subclass [A61M](#). Similar devices or processes to those covered by subclass [A61M](#) that are usable exclusively for animals, or are used in animals in a different manner or for different purposes than for humans, are classified in subclass [A61D](#).

When used with living or dead human bodies

Patent documents for general-purpose medical devices or processes that are otherwise proper for subclass [A61M](#) are classified in subclass [A61M](#) when they either disclose only being used on living human bodies or broadly disclose being used on humans. Patent documents for general -purpose medical devices or processes that are otherwise proper for subclass [A61M](#) and fully identified as being used on both living and dead human bodies are classified in subclass [A61M](#) and subclass [A01N](#) or [A61B](#) Patent documents for similar devices or processes to those covered by subclass [A61M](#) that are specially adapted for use exclusively on dead humans are classified only in subclass [A01N](#) or [A61B](#).

Implantable prostheses or artificial organ replacements

With regard to human organs and their parts, the exact distinction between the artificial devices implantable into human bodies that are proper for subclass [A61F](#) and those proper for subclass [A61M](#) is somewhat imprecise. Therefore, for analogous situations that are not specifically covered by existing groups of these subclasses, the following listings are intended to

provide guidance. Subclass [A61F](#) provides for the following replacements or substitutes for internal body organs or their parts: artificial hollow or tubular parts of organs (e.g., bladders, tracheae, bronchi, hearts valves and blood vessels, bile ducts), structural supporting or maintaining devices for such parts or their natural equivalents (e.g., stents), artificial eyes, and artificial ears. Subclass [A61M](#) provides for the following replacements or substitutes for internal body organs or their parts: artificial hearts, artificial livers, artificial ventilators, artificial pancreas, and artificial kidneys.

References relevant to classification in this subclass

This subclass/group does not cover:

Applications or methods that use specific materials, compositions, or single compounds for the preservation of human bodies or for the preservation of living parts of human bodies	A01N 1/00
Devices or methods for handling cosmetic or toilet substances	A45D
Surgical introduction or removal of body parts or their substitutes	A61B
Devices specially adapted for taking blood samples	A61B 5/15
Devices specially adapted for vivisection or autopsy	A61B 16/00
Devices or methods for introducing solid, liquid, or gaseous remedies or other materials into or onto the bodies of animals	A61D 7/00
Prostheses implantable into a human body	A61F 2/02
Medicinal preparations characterised by special physical form	A61K 9/00
Chemical aspects of bandages, dressings, absorbent pads, or other surgical articles placed upon into human body	A61L
Electrotherapy, e.g. producing	A61N 1/34

anaesthesia by the use of alternating or intermittent currents	
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Devices worn by patients for reception of urine, faeces, catamenial, or other bodily discharges	A61F 5/44
Application swabs	A61F 13/15
Devices for receiving spittle	A61J 19/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices worn by patients for reception of urine, faeces, catamenial, or other bodily discharges	A61F 5/44
Application swabs	A61F 13/15
Devices for receiving spittle	A61J 19/00

Special rules of classification within this subclass

When a device or method covered by subclass [A61M](#) includes a separating process for body-liquids that utilizes chromatography, and features of general interest related to chromatography are usefully disclosed but not claimed, the features should also be non-obligatorily classified within group [B01D 15/08](#).

Main group [A61M 36/00](#) takes precedence over all other main groups of subclass [A61M](#).

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Media	Solid, liquid, or gaseous substances or devices (e.g., medicine, food, in vivo testing material, catheters) which are either used by or within human bodies for medical or physical
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	purposes, components of or substances naturally within human bodies (e.g., artificial heart, blood, insulin), or bodily discharge or waste created by human bodies or medical processes taking place within human bodies (e.g., urine).
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A61M 1/00

Suction or pumping devices for medical purposes; Devices for carrying-off, for treatment of, or for carrying-over, body-liquids; Drainage systems ([N: A61M3/00 to A61M5/00, A61M11/00 to A61M16/00, A61M27/00 to A61M35/00 take precedence]; catheters A61M25/00; tube connectors, tube couplings, valves or branch units specially adapted for medical use A61M39/00; devices for taking samples of blood A61B5/14; implements for holding wounds open A61B17/02; [N: saliva removers for dentists A61C17/04]; filters implantable into blood vessels A61F2/01; pumps in general F04)

References relevant to classification in this group

This subclass/group does not cover:

Irrigators; Enemata	A61M 3/00
Syringes; Infusion devices	A61M 5/00
Sprayers or atomizers	A61M 11/00
Inhalators	A61M 15/00
Respirators	A61M 16/00
Drainage appliances for wounds	A61M 27/00
Dilators	A61M 29/00
Devices for introducing or retaining media	A61M 31/00
Devices for applying media	A61M 35/00

Informative reference:

Attention is drawn to the following places, which may be of interest for search:

Catheters	A61M 25/00
Tube connectors, tube couplings, valves or branch units specially adapted for medical use	A61M 39/00
Devices for taking samples of blood	A61B 5/14
Implements for holding wounds open	A61B 17/02
Saliva removers for dentists	A61C 17/04
Filters implantable into blood vessels	A61F 2/01
Pumps in general	F04
Devices worn by the patient for reception of urine, faeces, catamenial or other discharge	A61F 5/44

Special rules of classification within this group

The "subdivision" Indexing Code symbols (i.e. the non "parallel" Indexing Code symbols) are used for classifying as well the invention information as the additional information. They are stored only in the additional information field.

The "orthogonal" Indexing Code symbols ([A61M 2202/00-A61M 2250/00](#)) are also used.

A61M 1/0001

[N: Containers for suction drainage, e.g. rigid containers]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Blood reservoirs	A61M 1/3627
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A61M 1/0003

[N: Self-contained vacuum aspirators]

Definition statement

This subclass/group covers:

Vacuum aspirators which contain the pumping means and the containers in a compact way, e.g. mucous aspirators for babies

A61M 1/0005

[N: with means for emptying the suction container, e.g. by interrupting suction]

Definition statement

This subclass/group covers:

Containers for suction drainage having foreseen means for emptying the container, e.g. means allowing to remove the container without interrupting the suction or means for interrupting suction so that the container can be removed; pulsating suction is not considered as having interruptions in the sense of the present definition

Informative references

Attention is drawn to the following places, which may be of interest for search:
also for blood transfusion

A61M 1/0009

[N: incorporating a movable wall to create suction, e.g. syringes (with a flexible member creating suction A61M1/0011; cupping glasses A61M1/08)]

Definition statement

This subclass/group covers:

only DRAINAGE CONTAINERS (thus not syringe pumps where the aspirated material is not entering the syringe barrel) incorporating a movable rigid wall

References relevant to classification in this group

This subclass/group does not cover:

Containers with a flexible member creating suction	A61M 1/0011
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Cupping glasses	A61M 1/08
Piston (air) pumps for creating suction	A61M 2001/0068

A61M 1/0011

[N: Drainage containers incorporating a flexible member creating suction, e.g. bags in a low-pressure chamber, bellows]

Definition statement

This subclass/group covers:

only DRAINAGE CONTAINERS having a flexible member, thus not bulb or membrane pumps where the aspirated material is not collected inside the pump

Informative references

Attention is drawn to the following places, which may be of interest for search:

Emptying infusion-containers	A61M 5/1483
Rigid container with flexible liner	A61M 1/0001
Membrane (air) pumps for creating suction	A61M 2001/0072
Liner in a rigid container	K61M 1/00A1L

A61M 1/0013

[N: Two- or three-bottle systems for underwater drainage, e.g. for chest cavity drainage]

Synonyms and Keywords

Thoracic or pleural drainage

A61M 1/0019

[N: Drainage containers not being adapted for subjection to vacuum, e.g. bags (devices worn by the patient for reception of urine A61F5/44; emptying devices for drainage bags B65B69/0016)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices worn by the patient for the reception of urine etc	A61F 5/44
Emptying devices for drainage bags	B65B 69/0016
Surgical drapes with fluid collection means	A61B 19/08

A61M 1/0021

[N: Gravity drainage systems (A61M1/0019 takes precedence)]

References relevant to classification in this group

This subclass/group does not cover:

Drainage containers not being adapted for subjection to vacuum	A61M 1/0019
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A61M 1/0023

[N: Suction drainage systems (containers therefor A61M1/0001; suction-irrigation systems A61M1/0058

Definition statement

This subclass/group covers:

Units with incorporated vacuum source, through which no liquid passes:

References relevant to classification in this subclass/group

This subclass/group does not cover:

units with incorporated vacuum source through which liquid passes, these are considered as pumping containers	A61M 1/0001
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Containers therefor	A61M 1/0001
Suction-irrigation systems	A61M 1/0058

A61M 1/0031

[N: Suction control (A61M1/0013, A61M1/0041 take precedence)]

Definition statement

This subclass/group covers:

This group covers suction irrigation systems describing details of the way suction is controlled

References relevant to classification in this group

This subclass/group does not cover:

With means for varying suction manually	A61M 1/0041
Two- or three-bottle systems for underwater drainage	A61M 1/0013

Informative references

Attention is drawn to the following places, which may be of interest for search:

Controlling pressure, in general	A61M 2205/3331
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A61M 1/0037

[N: Intermittent or pulsating suction (A61M1/0005, A61M1/0062 take precedence)]

References relevant to classification in this group

This subclass/group does not cover:

With means for emptying the suction container, e.g. by interrupting suction	A61M 1/0005
Operating alternately	A61M 1/0062

A61M 1/0039

[N: Handpieces (aspiration tips A61M1/008)]]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Aspiration tips	A61M 1/008
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A61M 1/0041

[N: with means for varying suction manually (suction control A61M1/0031)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Suction control more generally	A61M 1/0031
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A61M 1/0043

[N: by changing the section of the line]

Definition statement

This subclass/group covers:

handpieces with means for varying suction manually by changin the section of

the line, e.g. changing the section of the line by pinching tubing

A61M 1/0047

[N: by changing the size of a vent (in combination with changing the section of the line A61M1/0043)]

References relevant to classification in this group

This subclass/group does not cover:

In combination with changing the section of the line	A61M 1/0043
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A61M 1/0049

[N: Means preventing overflow or contamination of the pumping systems (combined with rigid drainage containers A61M1/0001)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Combined with rigid drainage containers	A61M 1/0001
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A61M 1/0056

[N: Filters for solid matter (similar devices for dental use A61C17/046)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

For dental use	A61C 17/046
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A61M 1/0058

[N: Suction-irrigation systems (aspiration tips supplying fluids A61M1/0084; combined with tracheal tubes A61M16/0463)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

In endoscopes	A61B 1/12
Aspiration tips supplying fluids	A61M 1/0084
Combined with tracheal tubes	A61M 16/0463
Dental	A61C 17/0208

A61M 1/0062

[N: operating alternately (A61M1/0064 takes precedence)]

Definition statement

This subclass/group covers:

Suction irrigation systems with suction and irrigation being operated alternately

References relevant to classification in this group

This subclass/group does not cover:

Handpieces	A61M 1/0064
Single needle systems	A61M 1/30

A61M 1/0064

[N: Handpieces therefor]]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Irrigators with suction means	A61M 3/0283
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A61M 1/0066

[N: Suction pumps (A61M1/0003, A61M1/0011, A61M1/0023,

A61M1/10 take precedence)]

Definition statement

This subclass/group covers:

suction pumps for medical purposes except for the groups mentioned as taking precedence and where the pump mechanism is described in detail

References relevant to classification in this group

This subclass/group does not cover:

Self-contained vacuum aspirators	A61M 1/0003
Drainage containers incorporating a flexible member creating suction	A61M 1/0011
Suction drainage systems	A61M 1/0023
Blood pumps	A61M 1/10

A61M 1/0074

[N: by vacuum created above a liquid flowing from a closed container]

Definition statement

This subclass/group covers:

suction pumps where the vacuum is created above a liquid flowing from a closed container, e.g. pumps for pleural drainage

A61M 1/0076

[N: using Laval or Venturi jet pumps]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Similar devices in ventilators	A61M 2016/0012
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A61M 1/0078

[N: Tube strippers, i.e. for clearing the contents of the tubes (vein strippers A61B17/00008)]

References relevant to classification in this group

This subclass/group does not cover:

Vein strippers	A61B 17/00008
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A61M 1/008

[N: Drainage tubes; Aspiration tips]

Definition statement

This subclass/group covers:

Drainage tubes and aspiration tips which are related to described suction means

References relevant to classification in this group

This subclass/group does not cover:

Wound drainage tubes without described suction means	A61M 27/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Cupping glasses	A61M 1/08
Combined with tracheal tubes	A61M 16/0463
Surgical middle ear drainage	A61F 11/002

A61M 1/0084

[N: With gas or fluid supply means, e.g. for supplying rinsing fluids, anticoagulants (for irrigation without suction A61M3/0279; combined with tracheal tubes A61M16/0463; dental instruments with combined rinsing and aspirating A61C17/0208)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

For irrigation without suction	A61M 3/0279
Double lumen needles	A61M 5/1582
Multi lumen catheters	A61M 25/0026
Combined with endotracheal tubes	A61M 16/0463
Dental	A61C 17/0208

A61M 1/0088

[N: with a seal, e.g. to stick around a wound for isolating the treatment area]]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Wound drain tubes	A61M 27/00
Absorbent bandages or dressings	A61F 13/00
Absorbent bandages or dressings with possibility of applying fluid	K61J 13/00J8
Absorbent bandages or dressings with possibility of applying fluid and pressure	K61J 13/00J8A

A61M 1/02

Blood transfusion apparatus (blood infusion by syringes A61M5/14))

Informative references

Attention is drawn to the following places, which may be of interest for search:

Blood infusion by syringes	A61M 5/14
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A61M 1/0209

[N: Multiple bag systems for separating or storing blood components]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Details of blood bags	A61J 1/10
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A61M 1/024

[N: Means for controlling the quantity of transfused blood, e.g. by weighing the container and automatic stopping of the transfusion after reaching a determined amount]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Containers with means for emptying the container with or without interrupting suction	A61M 1/0005
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A61M 1/0245

[N: combined with blood container shaking means]

Definition statement

This subclass/group covers:

Means for controlling the quantity of transfused blood combined with blood container shaking means]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Means for agitating or shaking blood containers not in combination with means for controlling the quantity of blood	A61M 1/025
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A61M 1/025

[N: Means for agitating or shaking blood containers (A61M1/0245 takes precedence; shaking in general B01F11/00)]

References relevant to classification in this group

This subclass/group does not cover:

Combined with blood container shaking means	A61M 1/0245
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Shaking in general	B01F 11/00
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A61M 1/0259

[N: Apparatus for treatment of blood or blood constituents not otherwise provided for (for agitating A61M1/025; for separating blood components present in distinct layers in a container A61M1/029)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

For agitating	A61M 1/025
For separating blood components present in distinct layers in a container	A61M 1/029

A61M 1/0263

[N: prior to or for conservation, e.g. for freezing, drying, centrifuging]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Prior to transfusion	A61M 1/0268
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A61M 1/0268

[N: prior to transfusion, e.g. for washing, filtering, thawing]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Prior to or for conservation	A61M 1/0263
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A61M 1/0272

[N: Apparatus for treatment of blood or blood constituents prior to or for conservation, e.g. freezing, drying or centrifuging]

Definition statement

This subclass/group covers:

Apparatus for treatment of blood or blood constituents prior to or for conservation, e.g. freezing, drying or centrifuging

Informative references

Attention is drawn to the following places, which may be of interest for search:

Prior to transfusion	A61M 1/0281
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A61M 1/0281

[N: Apparatus for treatment of blood or blood constituents prior to transfusion, e.g. washing, filtering or thawing]

Definition statement

This subclass/group covers:

Apparatus for treatment of blood or blood constituents prior to or for

transfusion, e.g. washing, filtering or thawing

Informative references

Attention is drawn to the following places, which may be of interest for search:

Prior to or for conservation	A61M 1/0272
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A61M 1/029

[N: Separating blood components present in distinct layers in a container, not otherwise provided for (containers for storing blood or blood components A61J1/00T; sampling or analysing blood by separating blood components G01N33/491)]

Definition statement

This subclass/group covers:
Separating stratified blood components.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Containers for storing blood or blood components	A61J 1/00T
Sampling or analysing blood by separating blood components	G01N 33/491

A61M 1/04

[N: Artificial] pneumothorax apparatus

Definition statement

This subclass/group covers:
Artificial pneumothorax apparatus, e.g. devices for creating and treating a pneumostoma

A61M 1/06

Milking pumps (feeding-bottles A61J9/00))

Informative references

Attention is drawn to the following places, which may be of interest for search:

Feeding bottles	A61J 9/00
Breast shields	A61J 13/00
Teats	A61J 11/00
Brassieres	A41C 3/00

A61M 1/08

Cupping glasses

Definition statement

This subclass/group covers:

This group covers the traditional cupping glasses, but contains also similar devices such as poison extractors

Informative references

Attention is drawn to the following places, which may be of interest for search:

Suction massage	A61H 9/005
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Special rules of classification within this group

Rigid cups having pumping shut-off valves are coded with	A61M 1/0003
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Special rules of classification within this group

Rigid cups having pumping shut-off valves are coded with	A61M 1/0003
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A61M 1/10

Blood pumps; Artificial hearts; Devices for mechanical

**circulatory assistance, e.g. intra-aortic balloon pumps
(artificial heart valves A61F2/24; heart stimulation A61H31/00))**

References relevant to classification in this group

This subclass/group does not cover:

Heart stimulation	A61H 31/00
Constructive details of valves therefor	A61F 2/24

A61M 1/101

[N: Non-positive displacement pumps, e.g. impeller, centrifugal, vane pumps]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Electric motors	H02K
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A61M 1/1037

[N: Pumps having flexible elements, e.g. with membranes, diaphragms, or bladder pumps]

References relevant to classification in this group

This subclass/group does not cover:

Moving membranes in blood filters used for pumping	A61M 2001/267
Constructive details of valves therefor	A61F 2/24

A61M 1/1046

[N: Drive systems therefor, e.g. mechanically, electromechanically or skeletal muscle drive means]

Definition statement

This subclass/group covers:

Drive systems therefor, e.g. mechanically, electromechanically or skeletal muscle drive means.

A61M 1/1053

[N: using non-rotary electrical means]

Definition statement

This subclass/group covers:

Drive systems therefor using non-rotary electrical means e.g. electromagnetic means, magnetostrictive means, thermo-electric-means, piezoelectric means

A61M 1/106

[N: using hydraulic or pneumatic means]

A61M 1/1067

[N: using a blood vessel as flexible element (not used, see subgroups)]

Definition statement

This subclass/group covers:

Pumps using a blood vessel as flexible element even if the blood vessel is a prosthesis

References relevant to classification in this group

This subclass/group does not cover:

Using the heart wall as a flexible element	A61M 1/1068
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Special rules of classification within this group

documents are only classified in the parallel Indexing Code-code

A61M 1/1068

[N: using the heart as flexible element]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Bags, strips or bands to improve the function of the heart muscle	A61F 2/2481
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A61M 1/107

[N: Pulsating membrane pumps without valves, e.g. for counter pulsation, extra-arterial balloon pumps]

Definition statement

This subclass/group covers:

Pulsating membrane pumps without valves, e.g. for counter pulsation, extra-arterial balloon pumps

A61M 1/1072

[N: Intra-arterial balloon pumps, e.g. intra-aortic]

References relevant to classification in this group

This subclass/group does not cover:

Other intravascular pumps	A61M 2001/125
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A61M 1/1081

[N: Piston pumps]

References relevant to classification in this group

This subclass/group does not cover:

Constructive details of valves therefor	A61F 2/24
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A61M 1/1086

[N: Regulating or controlling systems therefor]

Definition statement

This subclass/group covers:

Electronical or mechanical regulation or controlling systems for any type of blood pumps

A61M 1/12

implantable into the body [N: (not used, see subgroups)]

References relevant to classification in this group

This subclass/group does not cover:

Intravascular balloon pumps	A61M 1/1072
Membrane pumps using a blood vessel as flexible element	A61M 1/1067

A61M 1/127

[N: Energy supply devices, converters therefor]

Definition statement

This subclass/group covers:

Energy supply devices and converters therefor for all types of blood pumps

Informative references

Attention is drawn to the following places, which may be of interest for search:

Telemetry, communication with implanted devices	A61M 2205/3507
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A61M 1/14

Dialysis systems; Artificial kidneys; Blood oxygenators; [N: Reciprocating systems for treatment of body fluids, e.g. single needle systems for haemofiltration, pheresis (haemofiltration using non reciprocating systems A61M1/34; extracorporeal blood circuit aspects A61M1/36)]; (processes of separation using semi-permeable membranes B01D61/00; semi-permeable membranes characterised by the material, manufacturing processes therefor B01D71/00))

Informative references

Attention is drawn to the following places, which may be of interest for search:

Haemofiltration using non	A61M 1/34
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reciprocating systems	
Extracorporeal blood circuit aspects	A61M 1/36
Processes of separation using semi-permeable membranes	B01D 61/00
Semi-permeable membranes characterized by the material, manufacturing processes therefor	B01D 71/00
Peritoneal dialysis catheters	A61M 1/29C

A61M 1/16

with membranes [N: (A61M1/30 takes precedence; membranes per se B01D69/00, B01D71/00)]

References relevant to classification in this group

This subclass/group does not cover:

Single-needle systems	A61M 1/30
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Blood circuits thereof	A61M 1/3621
Membranes per se	B01D 69/00
Materials and manufacturing or membranes	B01D 71/00

A61M 1/1654

[N: Dialysates therefor]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chemical formulae of dialysates	A61K 31/00
Medicinal preparation containing inorganic ingredients	A61K 33/00
Treating water for medical purposes	C02F 2103/026

A61M 1/1656

[N: Apparatus for preparing dialysates (with regeneration of dialysates A61M1/1696)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

With regeneration of dialysates	A61M 1/1696
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A61M 1/1658

[N: Degasification (in general B01D19/00)]

Definition statement

This subclass/group covers:
Degasification of dialysates

Informative references

Attention is drawn to the following places, which may be of interest for search:

Degasification in general	B01D 19/00
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A61M 1/1678

[N: intracorporal (A61M1/28 and A61F2/022 take precedence)]

Definition statement

This subclass/group covers:
Intracorporal (e.g. implanted) dialysis systems, artificial kidneys, blood oxygenators.

References relevant to classification in this group

This subclass/group does not cover:

Peritoneal dialysis	A61M 1/28
Artificial glands	A61F 2/022
Implanted artificial glands using bioreactors	A61F 2/022

A61M 1/168

[N: Sterilisation or cleaning before or after use (sterilisation of materials in general A61L; cleaning or sterilisation of membrane modules apart from the machine B01D65/02))]

Definition statement

This subclass/group covers:

Sterilisation or cleaning before or after use of the dialysis device, artificial kidneys or blood oxygenators, this can be both the dialysate or the blood side of the device and is not limited to self-cleaning.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Priming, rinsing blood circuits before or after use	A61M 1/3643
Sterilisation of materials in general	A61L 2/00
Cleaning or sterilisation of membrane modules apart from the machine	B01D 65/02

A61M 1/1686

[N: by heat]

Definition statement

This subclass/group covers:

Sterilization or cleaning by heat, e.g. by steam

A61M 1/169

[N: using chemical substances]

References relevant to classification in this group

This subclass/group does not cover:

Priming, rinsing blood circuits before or after use	A61M 1/3643
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A61M 1/1692

[N: Detection of blood traces in dialysate (testing of the membrane modules B01D65/10; investigating fluid-tightness of structures in general G01M3/00)]

References relevant to classification in this group

This subclass/group does not cover:

Other testing of filters for leaks	A61M 2205/705
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Testing the membrane modules	B01D 65/10
Investigating fluid-tightness of structures in general	G01M 3/00

A61M 1/1694

[N: with recirculating dialysing liquid]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Peritoneal dialysis	A61M 1/28
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A61M 1/1696

[N: with dialysate regeneration]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Substitution fluid using dialysate	A61M 2001/3465
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A61M 1/1698

[N: Blood oxygenators with or without heat-exchangers (A61M1/1678 takes precedence; membranes therefor B01D67/00, B01D69/00, B01D71/00)]

References relevant to classification in this group

This subclass/group does not cover:

Intracorporal oxygenators	A61M 1/1678
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Manufacturing of membranes therefor	B01D 67/00
Form or properties of membranes therefor	B01D 69/00
Materials and manufacturing of membranes therefor	B01D 71/00

A61M 1/26

[N: and internal elements] which are moving

Special rules of classification within this group

Only used as an Indexing Code, documents are classified in [B01D](#)

A61M 1/28

Peritoneal dialysis; [N: Other peritoneal treatment, e.g. oxygenation]

Definition statement

This subclass/group covers:

contains also other peritoneal treatment, e.g. oxygenation

Informative references

Attention is drawn to the following places, which may be of interest for search:

Irrigation systems	A61M 3/02
Bags therefor	A61J 1/00T
Sterile connections	A61M 39/10

A61M 1/285

[N: Catheters therefor]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Sterile connections	A61M 39/10
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A61M 1/287

[N: Dialysates therefor]

Informative references

Attention is drawn to the following places, which may be of interest for search:

For other dialysates	A61M 1/1654
Preparation of dialysates	A61M 1/1656

A61M 1/30

[N: Reciprocating systems, alternately withdrawing blood from and returning it to the patient, e.g. single-lumen-needle dialysis or single needle systems for haemofiltration, pheresis]

Definition statement

This subclass/group covers:

Reciprocating systems, alternately withdrawing blood from and returning it to the patient, e.g. single-lumen-needle dialysis or single needle systems for haemofiltration, pheresis

A61M 1/32

Oxygenators without membranes

Definition statement

This subclass/group covers:

Oxygenators without membranes e.g. bubble oxygenators

A61M 1/34

Filtering material out of the blood by passing it through a membrane, i.e. haemofiltration, diafiltration [N: (A61M1/30 takes precedence; extracorporeal blood circuit aspects A61M1/36)]]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Single-needle systems	A61M 1/30
Extracorporeal blood circuit aspects	A61M 1/36

A61M 1/3413

[N: Diafiltration]

Definition statement

This subclass/group covers:

Combined dialysis (i.e. using dialysate) and haemofiltration (i.e. with

considerable amounts of ultrafiltrate requiring substitution).

A61M 1/342

[N: Adding solutions to the blood, e.g. substitution solutions (for preventing coagulation A61M1/3672)]]

References relevant to classification in this group

This subclass/group does not cover:

For preventing coagulation	A61M 1/3672
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A61M 1/3441

[N: Substitution rate control as a function of the ultrafiltration rate]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Weighing fresh and used dialysate	K61M 1/16A7
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A61M 1/3455

[N: Substitution fluids]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Using dialysate as substitution fluid	A61M 2001/3465
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A61M 1/3462

[N: Circuits for the preparation thereof]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Using dialysate as substitution fluid	A61M 2001/3465
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A61M 1/3472

[N: with treatment of the filtrate]

Informative references

Attention is drawn to the following places, which may be of interest for search:

with treatment of the filtrate with treatment agent in the same enclosure as the membrane	A61M 2001/3475
with treatment of the filtrate by dialysing the filtrate	A61M 2001/3479
with treatment of the filtrate by filtrating the filtrate using another crossflow filter, e.g. a membrane filter	A61M 2001/3482
with biological or chemical treatment of the filtrate, e.g. chemical precipitation, treatment by absorbents	A61M 2001/3486
with treatment of the filtrate by using treatment agents in suspension	A61M 2001/3493

A61M 1/3496

[N: Plasmapheresis; Leucopheresis; Lymphopheresis (A61M1/3472 takes precedence; single-needle processes A61M1/30)]]

References relevant to classification in this group

This subclass/group does not cover:

With treatment of the filtrate	A61M 1/3472
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Single-needle processes	A61M 1/30
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A61M 1/36

Other treatment of blood in a by-pass of the natural circulatory system, e.g. temperature adaptation, irradiation; [N: Extra-corporeal blood circuits]

Definition statement

This subclass/group covers:

Other treatment of blood in a by-pass of the natural circulatory system, e.g. temperature adaptation, irradiation

A61M 1/3621

[N: Extra-corporeal blood circuits (single-needle circuits A61M1/30)]]

Definition statement

This subclass/group covers:

Includes all blood circuits (e.g. also for dialysis, haemofiltration), single needle circuits excepted.

References relevant to classification in this group

This subclass/group does not cover:

Single-needle circuits	A61M 1/30
Double lumen needles	A61M 5/1582
Multi lumen catheters	A61M 25/0026

A61M 1/3624

[N: Level detectors; Level control]

Definition statement

This subclass/group covers:

Blood level detectors and blood level control.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Optical liquid level detectors in general	G01F 23/292
Measuring liquid level in general	G01F 25/0061
Measuring liquid level in infusion	A61M 5/1684

A61M 1/3626

[N: Gas bubble detectors (blood leak detection by change of transparency of dialysate A61M1/1692; in infusion devices A61M5/365; observing bubbles in a liquid pool for leak detection, in general G01M3/06)]]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Blood leak detection by change of transparency of dialysate	A61M 1/1692
In infusion devices	A61M 5/365
Observing bubbles in a liquid pool for leak detection, in general	G01M 3/06

A61M 1/3627

[N: Degassing devices; Buffer reservoirs; Drip chambers; Blood filters (priming A61M1/3643; blood filters for infusion A61M5/165)]]]

Definition statement

This subclass/group covers:

Degassing devices, buffer reservoirs, drip chambers, blood filters, these devices can be isolated but often some of them are combined in one device

Informative references

Attention is drawn to the following places, which may be of interest for search:

Priming	A61M 1/3643
Blood filters for infusion	A61M 5/165
Filters for solid matter in combination with suction devices	A61M 1/0056

A61M 1/3633

[N: Blood component filters, e.g. leukocyte filters]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Type of blood component	A61M 2202/04
Filtering out liquids in general	B01D 39/00
Filters for lipoids	A61M 1/3627

A61M 1/3639

[N: Blood pressure control, pressure transducers specially adapted therefor]

Definition statement

This subclass/group covers:

Blood pressure control in the extracorporeal circuit of a blood treatment system and pressure transducers specially adapted therefor

Informative references

Attention is drawn to the following places, which may be of interest for search:

Control of inversion time between collection and reinfusion phase in single needle systems by pressure control	K16M 1/30A10
Blood pressure measurement on the patient	A61B 5/02

A61M 1/3643

[N: Priming, rinsing before or after use]

Definition statement

This subclass/group covers:

Priming, rinsing before or after use of the extracorporeal blood circuit

Informative references

Attention is drawn to the following places, which may be of interest for search:

Sterilizing the dialysator	A61M 1/168
Rinsing for regenerating the filter	A61M 2205/7554
Arrangements for blood volume reduction	A61M 2001/3606

A61M 1/3653

[N: Interfaces between patient blood circulation and extra-corporal blood circuit]

Definition statement

This subclass/group covers:

Interfaces between the blood circulation of the patient and the extra-corporal blood circuit, e.g. mechanical interfaces such as adapted catheters, needles, cannulas, or electrical interfaces, e.g. electrodes for monitoring proper connection of the patient to the blood circuit

Informative references

Attention is drawn to the following places, which may be of interest for search:

Catheter holding devices	A61M 25/02
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A61M 1/3655

[N: Arterio-venous shunts, fistulae]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Access sites	A61M 39/02
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A61M 1/3663

[N: Flow rate transducers; Flow integrators (measuring the flow in general G01F)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Measuring flow in general	G01F
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A61M 1/3664

[N: for preparing cardioplegia solutions]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Means for cooling	A61M 2205/3606
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A61M 1/3666

[N: Cardiac or cardiopulmonary bypass, e.g. heart-lung machines]

Informative references

Attention is drawn to the following places, which may be of interest for search:

With assisted venous return	A61M 2001/3667
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A61M 1/3669

**[N: Electrical impedance measurement of body fluids;
transducers specially adapted therefor]**

Informative references

Attention is drawn to the following places, which may be of interest for search:

Other measuring of impedance	A61M 2205/3317
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A61M 1/367

**[N: Circuit parts not covered by the preceding subgroups of
group A61M1/3621]**

Definition statement

This subclass/group covers:

Circuit parts not covered by the preceding subgroups of group [A61M 1/3621](#)
e.g. connectors, sensors and valves

References relevant to classification in this group

This subclass/group does not cover:

Level detectors	A61M 1/3624
Gas bubble detectors	A61M 1/3626
Degassing devices	A61M 1/3627
Blood pressure control	A61M 1/3639
Priming	A61M 1/3643
Interfaces	A61M 1/3653
Flow rate Transducers	A61M 1/3663
For cardioplegia	A61M 1/3664
Cardiac bypass	A61M 1/3666
Impedance measurement	A61M 1/3669

A61M 1/3672

[N: Means preventing coagulation (aspiration tips with anticoagulant delivery A61M1/0084)]]

Definition statement

This subclass/group covers:

Extra-corporeal blood circuits having means preventing coagulation of the blood, e.g. heparine infusion or anticoagulant coating or a geometrical configuration described as minimizing coagulation

Informative references

Attention is drawn to the following places, which may be of interest for search:

Aspiration tips with anticoagulant delivery	A61M 1/0084
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A61M 1/3675

[N: Deactivation]

Definition statement

This subclass/group covers:

Extra-corporeal blood circuits having means (e.g. chemical, in the blood) preventing coagulation of the blood, which means are thereafter deactivated (e.g. removed or neutralized so as not to compromise the health of the patient)

Synonyms and Keywords

In patent document the following expressions/words " heparin", "ACD" , "citrate" and " liquemine" are often used as synonyms.

A61M 1/3679

[N: by absorption (A61M1/3675 takes precedence)]

Definition statement

This subclass/group covers:

Extra-corporeal blood circuits whereby the blood is treated by absorption (the absorption of anticoagulants being classified in [A61M 1/3675](#))

References relevant to classification in this group

This subclass/group does not cover:

Deactivation of means preventing coagulation	A61M 1/3675
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Related fluid circuits	A61M 1/3621
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Special rules of classification within this group

Distinction between absorption and chemical treatment not always easy, therefore see also	A61M 1/3687
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A61M 1/3681

[N: by irradiation]

Definition statement

This subclass/group covers:

Extra-corporeal blood circuits in which the blood is treated by irradiation of any wavelength

Informative references

Attention is drawn to the following places, which may be of interest for search:

Sterilization by irradiation in general	A61L
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A61M 1/3687

[N: Chemical treatment (A61M1/3675 takes precedence)]

Definition statement

This subclass/group covers:

Extra-corporeal blood circuits in which the blood is treated by chemical means

References relevant to classification in this group

This subclass/group does not cover:

Deactivation of means preventing coagulation	A61M 1/3675
Related fluid circuits	A61M 1/3621

Special rules of classification within this group

Distinction between absorption and chemical treatment not always easy, therefore see also [A61M 1/3679](#)

A61M 1/369

[N: Temperature treatment (heating or cooling infusion media A61M5/44)]]

Definition statement

This subclass/group covers:

Hypo-, and hyperthermia devices; not intended for preservation nor for adapting to body temperature, but for treatments with intended irreversible results

Informative references

Attention is drawn to the following places, which may be of interest for search:

Hypothermia	A61M 19/00
Heating or cooling the body for treatment	A61F 7/00
Heating or cooling devices for bringing media into the body or the media	A61M 5/44

A61M 1/3693

[N: using separation based on different densities of components, e.g. centrifuging]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Centrifuges in general	B04B 5/00
Multiple bag systems therefor	A61M 1/02E2B
Rotating membrane filtering	A61M 2001/262

A61M 1/38

Removing constituents from donor blood and [N: storing or] returning remainder to body, [N: e.g. for transfusion]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Blood transfusion apparatus	A61M 1/02
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A61M 3/00

Medical syringes, e.g. enemata; Irrigators (A61M5/00 takes precedence; pistons A61M5/315)

Definition statement

This subclass/group covers:

Medical syringes used for irrigation, e.g. enemata as well as medical irrigators.

Relationship between large subject matter areas

Irrigation systems when combined with suction means classified in [A61M 3/00](#) if the focus of the invention information is on irrigation and in [A61M 1/0058](#) if the focus is on suction. In both cases an additional classification information in the other field may be given.

References relevant to classification in this group

This subclass/group does not cover:

Devices (e.g. syringes, needles) for bringing media into the body in a subcutaneous, intra-vascular or intramuscular way	A61M 5/00
Catheters	A61M 25/00
Dilators	A61M 29/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Suction-irrigation systems	A61M 1/0058
Pistons in syringes for use in subcutaneous, intra-vascular or intramuscular way	A61M 5/315
Drainage tubes with fluid supply means	A61M 1/0084
Introducing media into body cavities	A61M 31/00
Baths	A61H 35/00
Eye baths	A61H 35/02
Nose baths	A61H 35/04
For colostomy	A61F 5/442
Ophthalmic surgery	A61F 9/00R

Special rules of classification within this group

The "orthogonal" Indexing Codes scheme is also used.

In the subdivision Indexing Codes (i.e. the non-parallel Indexing Codes), as well the invention information as the additional information are classified (in the additional information field).

Subdivision-Indexing Codes:

[A61M 2003/0204](#)

[A61M 2003/0208](#)

[A61M 2003/0212](#)

[A61M 2003/0216](#)

[A61M 2003/022](#)

Further details of subgroups

[A61M 3/027](#)

catheter holding devices see [A61M 25/02](#)

[A61M 3/0279](#)

colostomy with irrigation port see [A61F 5/442](#)

[A61M 3/0283](#)

This group does not cover devices whose main object is suctioning and which moreover have irrigation means, these are classified in [A61M 1/0084](#)

[A61M 3/0287](#)

spraying on the skin: [A61H 9/0021](#)

surgical drapes with drain fluid collection means [A61B 2019/106](#)

splash shields for protection of the surgeon: [A61B 19/00F](#)

glossary: splash shield

[A61M 3/06](#)

bidets in general see [E03D 9/08](#)

A61M 5/00

DEVICES FOR BRINGING MEDIA INTO THE BODY IN A SUBCUTANEOUS; INTRA-VASCULAR OR INTRAMUSCULAR WAY; ACCESSORIES THEREFOR; e.g. FILLING OR CLEANING DEVICES; ARM RESTS ([N: vaccination appliances for veterinary use A61D1/025]; tube connectors, tube couplings, valves or branch units specially adapted for medical use A61M39/00; containers specially adapted for medical or pharmaceutical purposes A61J1/00; [N: combinations of vial and syringe for mixing or transferring their contents A61J1/00M; holders for containers for

collecting, storing or administering blood or medical fluids A61J1/16 J) J)

Definition statement

This subclass/group covers:

Infusion devices (infusion by gravity, infusion pumps, infusion needles, flow control etc.), syringes and details therefrom (automatic syringes, ampoules syringes, syringe cartridges, pistons, needles), means for preventing injection of air in body, means for desensitising skin, means for cooling or heating media to be infused, means for controlling depth of insertion.

References relevant to classification in this group

This subclass/group does not cover:

Introducing media into/onto bodies of animals	A61D 7/00
Containers for medicinal or pharmaceutical purposes	A61J 1/00
Devices for transducing body media or for taking media from the body	A61B
Suction devices for medical purposes, blood pumps, blood filters...	A61M 1/00
Catheters	A61M 25/00
Medicinal preparations	A61K 35/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Combination of vial and syringe for mixing or transferring their contents	A61J 1/2096
Blood transfusion	A61M 1/02
Apparatus for treating blood prior to transfusion	A61K 35/14B3
Pressure measurement lumen	K61M 25/00A6

Access sites	A61M 39/02
Y-connectors	A61M 39/10
Burettes, measuring cylinders for laboratory use	B01L 3/02
Telescopic rods	F16B 7/10
HOLDERS comprising label	G09F 3/0295
Linear peristaltic pumps, in general	F04B 43/12
Microneedles	A61M 37/00
Pressurized by contraction of elastic reservoir, in general	B65D 83/0061
Protectors for sharp	A61B 19/0262
Blood filters	A61M 1/34 , A61M 1/36
Making filter elements	B01D 29/111
Flow control in general	G05D 7/00
Indicating presence, absence or direction of flow, in general	G01P 13/0066
Detecting tissue temperature for diagnostic purposes	A61B 5/00H
Valves in general	F16K
Measuring of body parameters	A61B 5/00
Syringes for taking blood samples	A61B 5/14
Filling of medical containers in general	B65B 3/003 , A61J 1/00M6
Holders for storage of radioactive sources	G21F 5/018
Surgical glue applicators	A61B 17/00491

Syringes for injecting impression materials	A61C 9/0026
Systems or apparatus for checking the occurrence of a condition	G07C 11/00
Hypodermic projectiles	F42B 12/54
Ampoules or carpules	A61J/06
Diffusion through the skin	A61M 35/00
Cell injection devices	C12M 3/006
Apparatus of the syringe type	G01F 11/027
Indicating or measuring liquid levels	G01F 23/292
Guide needles for catheters	A61M 25/065
Disposal of medical waste in general	B09B 3/0075
Receptacles for refuse disposal in general	B65F 1/00
Disintegrating medical waste	B02C 19/12M
Grinding sharp-pointed work pieces	B24B 19/16
Making of hollow needles	B21G 1/08
Connecting catheter tubes to hubs	A61M 25/0014
Blood oxygenators	A61M 1/14
Hemofiltration equipment	A61M 1/34
Temperature treatment for blood	A61M 1/369
Heat exchange in general	F28
Heating or cooling in general	B01L 7/00
Heating by electric fields	H05B 6/80

Means for agitating	A61M 1/025
Medical informatics	G06F 19/00M

Special rules of classification within this group

The classification of "additional information" in the group is mandatory, but only if the additional information has some importance.

For example, the main invention is an infusion pump of the reciprocating piston type ([A61M 5/14216](#)), but a regulating valve ([A61M 5/16881](#)) is present in the device. If the valve is just mentioned as being a general valve with no specific details given on how the valve relates to the pump, then it is not worth giving a class in the field of valves. On the contrary, if the valve is well described and presents some interesting features that cooperates with features from the pump, then the document should also be classified in the field of regulating valves.

All documents dealing with medical informatics (software, programming of infusion devices, etc.) should be classified under [G06F 19/00](#).

Further details of subgroups

[A61M 5/14](#)

This subgroup also comprises various accessories for infusing by gravity, like drip chambers or hanging up devices (see relevant sub-classes).

[A61M 5/142](#)

Most subdivisions in this subgroup mainly describe the way in which the infusion pump works (peristaltic pump, roller pump, impeller pump...).

Other subdivisions however also relates to the fact that the pump is portable or implantable.

[A61M 5/158](#) and [A61M 5/162](#)

These two subgroups contain general information on infusion needles. The details of said needles can be found in [A61M 5/32](#) and [A61M 5/34](#).

[A61M 5/165](#)

Blood filters are now found in [A61M 1/34](#) and [A61M 1/36](#).

[A61M 5/168](#)

This subgroup contains flow controllers (regulating the flow of media), but also means for sensing or detecting flow anomalies.

[A61M 5/178](#), [A61M 5/19](#), [A61M 5/20](#), [A61M 5/24](#), [A61M 5/28](#) and [A61M 5/30](#)

Many different kind of syringes can be found in these sub groups. The automatic syringes (a certain action on a trigger will start the automatic injection of the media, no further action being required from the user) are found in [A61M 5/20](#), [A61M 5/24](#) and [A61M 5/28](#) regroups the ampoules syringes. In [A61M 5/24](#) the syringe bears the needle, in [A61M 5/28](#) the needle is present on the ampoule.

[A61M 5/30](#) relates to syringes for injection by jet action, also know as needleless syringes.

More syringes can also be found in other fields ([A61J 1/00-A61J 1/22](#), [A61B 5/14-A61B 5/14F](#), [A61B 17/00-A61B 17/921](#)).[A61M 5/31](#) and [A61M 5/315GENERAL](#) details of syringes (caps, constructional features, priming, valves, plugs, filling, etc.) can be found in the subgroup [A61M 5/31](#).

The subgroup [A61M 5/315](#) relates to detail of the piston (construction, blocking means, etc.), but also to dosing mechanisms (gears, electrical parts, axial movements, rotational movements) and other dosing-related subjects (feedback, keeping track of administered doses, etc.).

[A61M 5/32](#)

This subgroup deals with details of needles, and especially with ways to protect the user from the needle (needle caps, apparatus for removing or destroying needles, semi- or fully-automatic retractable needles, semi- or fully-automatic needle sleeves for protecting the needle, etc.).

[A61M 5/44](#)

This subgroup deals with means for cooling or heating the device (pump, syringe, etc.) or the media contained in the device (infusate, medicine, etc.).

[A61M 5/50](#)

Often forgotten, this group useful group deals with means for preventing re-use, or also for indicating if the device has already been used or tampered with.

A61M 9/00

Baths for subaquatic intestinal cleaning

Definition statement

This subclass/group covers:

Baths for subaquatic intestinal cleaning

Relationship between large subject matter areas

Baths are also classified in [A61H 35/00](#) and [A61H 33/00](#)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Baths	A61H 35/00
Bathing devices for special therapeutic or hygienic purpose	A61H 33/00
Irrigators	A61M 3/00

A61M 11/00

Sprayers or atomisers specially adapted for therapeutic purposes (in general B05B; [N: aerosol containers B65D83/14]))

Informative references

Attention is drawn to the following places, which may be of interest for search:

Sprayers or atomisers specially adapted for therapeutic purposes in general	B05B
Aerosol container	B65D 83/14
Spraying onto the body	A61M 35/00
Bath for the nose	A61H 35/04
Irrigator	A61M 3/00

Special rules of classification within this group

Also contains nebulizers.

The "subdivision" Indexing Code symbols (i.e. the non "parallel" Indexing Code symbols) are used for classifying as well the invention information as the additional information. They are stored only in the additional information field". The "orthogonal" Indexing Code symbols are also used.

A61M 11/005

[N: using ultrasonics (spraying or atomising liquids using ultrasonic vibrations in general B05B17/06)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Spraying or atomising liquids using ultrasonic vibrations in general	B05B 17/06
Inhalators using ultrasonic	A61M 15/0085

A61M 11/02

operated by air [N: or other gas] pressure applied to the liquid [N: or other product] to be sprayed or atomised [N: (sprayers for horticulture A01G, A01H; killing insects A01M; air humidifying by nozzles F24F6/14, F24F6/18; cooling by spraying F28B, F28C)])]

Definition statement

This subclass/group covers:

Devices with positive air pressure.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Sprayers for horticulture	A01G , A01H
Killing insects	A01M
Air humidifying by nozzles	F24F 6/14 , F24F 6/18
Cooling by spraying	F28B , F28C
Atomizer for painting	B05B
Adding O2, perfume to air	B60H 3/0007
Air disinfection	A61L 9/03

A61M 11/04

operated by the vapour pressure of the liquid to be sprayed or atomised [N: (air-humidification, e.g. "room humidifiers" F24F6/00)]]

Definition statement

This subclass/group covers:

Electrical heated vaporiser.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Air-humidification, e.g. "room humidifiers"	F24F 6/00
Humidifiers	A61M 16/16
Electrical heated vaporizers	F24H 1/00

A61M 11/041

[N: using heaters]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Heating the liquid	A61M 2016/109
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A61M 11/06

of the injector type

Definition statement

This subclass/group covers:

Devices with with a venturi system

Informative references

Attention is drawn to the following places, which may be of interest for search:

Operated by air	A61M 11/02
Spraying apparatus	B05B 7/0012
Single unit with follower	B05B 11/02

A61M 11/08

Pocket atomisers of the injector type [N: (aerosol cans A61M15/009))]]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Aerosol cans	A61M 15/009
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A61M 13/00

Insufflators for therapeutic or disinfectant purposes, [N: i.e. devices for blowing a gas, powder or vapour into the body (hand-held units in which gas flow is produced by muscular energy at the moment of use B05B11/062)]

Definition statement

This subclass/group covers:

Devices to inflate a cavity for easy access.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Hand-held units in which gas flow is produced by muscular energy at the moment of use	B05B 11/062
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Special rules of classification within this group

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The "orthogonal" Indexing Code symbols are also used.

A61M 13/003

[N: Blowing gases other than for carrying powders, e.g. for inflating, dilating or rinsing]

Informative references

Attention is drawn to the following places, which may be of interest for search:

For the destruction of noxious animals or noxious plants	A01M
Instrument for medical examination	A61B 1/12B
Insufflating needles therefor	A61B 17/3474

A61M 15/00

Inhalators [N: (drug delivery in endotracheal tubes A61M16/04)]]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Drug delivery in endotracheal tubes	A61M 16/04
For animals	A61D 7/04
Medicinal preparation for inhaling	A61K 9/0073

Special rules of classification within this group

The "subdivision" Indexing Code symbols (i.e. the non "parallel" Indexing Code symbols) are used for classifying as well the invention information as the additional information. They are stored only in the additional information field"

The "orthogonal" Indexing Code symbols are also used.

A61M 15/0028

[N: using prepacked dosages, one for each application, e.g. capsules to be perforated or broken-up]

Definition statement

This subclass/group covers:

Inhalators with unit dose with manual feeding

Informative references

Attention is drawn to the following places, which may be of interest for search:

Single unit with follower	B05B 11/02
Injector type	A61M 11/06

A61M 15/0045

[N: using multiple prepacked dosages on a same carrier, e.g. blisters]

Definition statement

This subclass/group covers:

E.g. multi unit dose, with automatic feeding

A61M 15/0065

[N: Inhalators with dosage or measuring devices (A61M15/0028 takes precedence; dosage devices incorporated in aerosol cans B65D83/52)]]

Definition statement

This subclass/group covers:

Inhalators with multi-dose reservoir, i.e. without capsule or blister

References relevant to classification in this group

This subclass/group does not cover:

Using prepacked dosages	A61M 15/0028
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Details of the spray nozzle	B05B
Dosage devices incorporated in aerosol cans	B65D 83/52
With aerosol and not described dosing	A61M 15/009

A61M 15/0085

[N: using ultrasonics (spraying or atomising liquids using ultrasonic vibrations in general B05B17/06)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Spraying or atomising liquids using ultrasonic vibrations in general	B05B 17/06
Sprayers using ultrasonic	A61M 11/005

A61M 15/0086

[N: Inhalation chambers]

Definition statement

This subclass/group covers:
Inhalators with spacers

A61M 15/009

[N: using medicine packages with incorporated spraying means, e.g. aerosol cans (pocket atomiser of the injector type A61M11/08))]]

Definition statement

This subclass/group covers:

Inhalators having a pressurized container, MDI

Informative references

Attention is drawn to the following places, which may be of interest for search:

Pocket atomiser of the injector type	A61M 11/08
Details of the spray nozzle	B05B
Dosing	A61M 15/0065
Aerosol container	B65D 83/14

A61M 15/0091

[N: mechanically breath-triggered]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Inhalation valve providing indirect breath activation	A61M 2015/0013
Flow sensor	A61M 2016/003
Inhalation detection	A61M 2016/0015

A61M 15/02

with activated or ionised [N: fluids, e.g. electrohydrodynamic (EHD) or electrostatic devices]; Ozone-inhalators [N: with radioactive tagged particles]

Definition statement

This subclass/group covers:

Also bubble jet technology inhalators.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Electrostatic spray gun	B05B 5/025
Sterilisation, deodorisation of air	A61L 9/14
Sterilisation using UV light	A61L 9/20
Bubble jet	A61M 2015/025
Apparatus for generating ions	H01T 23/00

A61M 15/06

Inhaling appliances shaped like cigars, cigarettes or pipes [N: (simulated smoking devices, e.g. imitation cigarettes, A24F47/002)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Simulated smoking devices, e.g. imitation cigarettes	A24F 47/002
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A61M 15/08

Inhaling devices inserted into the nose

Definition statement

This subclass/group covers:

Also eyes drop, aromatherapy devices.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Spraying apparatus	B05B 11/00
Eucalyptus vaporizer	A61L 9/14
Correcting deformities of the nose	A61F 5/08

Bath for nose	A61H 35/04
Irrigation	A61M 3/00
Using the smell sense	A61M 2021/0016

A61M 16/00

Devices for influencing the respiratory system of patients by gas treatment, e.g. mouth-to-mouth respiration; Tracheal tubes (stimulating the respiratory movement by mechanical, pneumatic or electrical means, iron lungs combined with gas breathing means A61H31/00; [N: supine patient supports therefor A61H31/00S2]; respiratory apparatus in general A62B; respirators for working under water B63C11/00))

Definition statement

This subclass/group covers:

Respirator, ventilator, devices for inflating the lungs

Informative references

Attention is drawn to the following places, which may be of interest for search:

Respiratory apparatus in general	A62B
Respirators for working under water	B63C 11/00
Stimulating the respiratory movement by mechanical, pneumatic or electrical means, iron lungs combined with gas breathing means	A61H 31/00
Supine patient supports therefor	A61H 31/00S2
Gas reservoir	F17C
Computer driven apparatus	G06F 17/00D4 , G06F 19/00M
Models for artificial respiration	G09B 23/288
Gas bath	A61H 33/00

Portable appliance comprising a gas cartridge	B01F 3/04C8B2
Testing ventilators	A62B 27/00 , A61M 2209/02
Anaesthesia apparatus	A61M 16/01
Supply appliance	A61G 13/00G
Inserts in the lungs, e.g. stents	A61F 2002/043
Hyperbaric chamber	B63C 11/32 , A61G 10/026
Correcting deformities of the nose	A61F 5/08
Device for preventing snoring	A61F 5/56
Pneumothorax apparatus	A61M 1/04
Breathing simulator	A62B 9/003
Wall plug	F16L 37/24 , F16L 37/107 , F16L 5/02 , F16L 29/02
Pipelines, hospital facility gas supply system	F17D 1/02

Special rules of classification within this group

The "subdivision" Indexing Code symbols (i.e. the non "parallel" Indexing Code symbols) are used for classifying as well the invention information as the additional information. They are stored only in the additional information field"

The "orthogonal" Indexing Code symbols are also used.

A61M 16/0045

[N: Means for re-breathing exhaled gases, e.g. for hyperventilation treatment]

Definition statement

This subclass/group covers:

Also devices for hypoxic delivery of gas.

References relevant to classification in this group

This subclass/group does not cover:

CO2 absorbing device	A61M 16/22
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Training device	K63B 213/05F2
Hypoxic training	A63B 23/18
Hyperbaric training room	A61G 10/20B

A61M 16/0048

[N: Mouth-to-mouth respiration (teaching or training models G09B23/288)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Teaching or training models	G09B 23/288
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A61M 16/0051

[N: with alarm devices]

Definition statement

This subclass/group covers:

Also devices with screens, calculation of resistance, compliance, calculation systems, feedback, estimation system, systems using root square techniques, PID system.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Alarm in general	G01L 19/12
Resistance, compliance of the lungs	A61M 2230/46
Monitoring	A61B 5/08
Stimulation	A61N 1/3601

A61M 16/0054

[N: Liquid ventilation]

Definition statement

This subclass/group covers:
Also ventilation in aerosol form.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Oxygenated solution	A61M 2202/0476
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A61M 16/0057

[N: Pumps therefor]

Definition statement

This subclass/group covers:
Pumps with variable mechanical maximum volume, limited stroke, hand driven, motor driven, otherwise driven.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Reinflatable by elasticity	A61M 2016/0084
Medical pump	A61M 1/00
Air pumping means for inhalator	A61M 2011/006
Pumps in general	F04

Other air pumps	A61M 2205/07
Mask with pump	A62B 18/006

Special rules of classification within this group

The devices classified in [A61M 16/0075](#), [A61M 16/0078](#) are often inflatable (mostly in anaesthesia), but are not reinflatable by elasticity.

A61M 16/0066

[N: Blowers or centrifugal pumps]

Definition statement

This subclass/group covers:

Pumps in the form of a fan, a turbine.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Gas pump in general	F04D
Helmet with fan	A62B 18/045

A61M 16/0072

[N: Tidal volume piston pumps]

Definition statement

This subclass/group covers:

Tidal-Volume means a precise inspiratory volume.

A61M 16/0078

[N: Breathing bags]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Material therefor	B23B 27/12
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Reinflatable by elasticity	A61M 2016/0084
Buffer chamber	A61M 15/0086

A61M 16/009

[N: Removing used or expired gases or anaesthetic vapours]

Definition statement

This subclass/group covers:

Devices with charcoal, active carbon filter

References relevant to classification in this group

This subclass/group does not cover:

Filtering, sterilising or disinfecting the exhaust air in drainage systems	A61M 2001/0052
Bacterial filters in the expiratory path	A61M 2016/1065

A61M 16/0096

[N: High frequency jet ventilation]

Definition statement

This subclass/group covers:

Mainly used for ventilation without respiratory movement, or in case of lung puncture.

A61M 16/01

pecially adapted for anaesthetising [N: (A61M16/104, A61M16/18 take precedence)]]

Definition statement

This subclass/group covers:

Closed circuit generally including a CO2 absorber.

References relevant to classification in this group

This subclass/group does not cover:

Anaesthetic mixer	A61M 16/104
Vaporizers	A61M 16/18

Informative references

Attention is drawn to the following places, which may be of interest for search:

CO2 absorber	A61M 16/22
Determining the level of anesthesia	A61B 5/4821

A61M 16/04

Tracheal tubes (catheters in general A61M25/00)

Definition statement

This subclass/group covers:

They are tubes introduced generally through the mouth or the nose of the patient.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Catheters in general	A61M 25/00
Prosthesis in the bronchi	A61F 2/04 , A61F 2002/043
Y-shaped prosthesis	A61F 2002/065
Ostial prosthesis	K61F 2/06E
Endoscope	A61B 1/00
Stethoscope	A61B 7/02

A61M 16/044

[N: External cuff pressure control or supply, e.g. synchronisation with respiration]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Mushroom valve	A61M 2016/206
Pressure indicating device	A61M 5/486 , A61M 25/1018
Blood pressure cuff pressurizing apparatus	A61B

A61M 16/0461

[N: Nasoendotracheal tubes]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Nasal cannula	A61M 6/06L
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A61M 16/0463

[N: combined with suction tubes, catheters or the like; Outside connections]

Definition statement

This subclass/group covers:

A manifold, a suction inside the tube.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Aseptic insertion for catheters in general	A61M 25/0111
Acces means to the stomach	A61M 2016/0415
Gastrotomy feeding tube	A61J 15/00A

Special rules of classification within this group

Also combined with drug delivery tube.

A61M 16/0465

[N: Tracheostomy tubes; Devices for performing a tracheostomy; Accessories therefor, e.g. masks, filters]

Definition statement

This subclass/group covers:

Tube introduced through the trachea

Informative references

Attention is drawn to the following places, which may be of interest for search:

Obturator	A61M 2016/0429
Artificial nose, transtracheal catheter, (trans)cricothyroid catheter, coniotomy prosthesis	A61F 2/203

A61M 16/0468

[N: with valves at the proximal end limiting exhalation, e.g. during speaking or coughing (air passages from trachea to oesophagus or to pharynx, artificial epiglottis A61F2/203)]

Definition statement

This subclass/group covers:

To enable the patient to speak.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Air passages from trachea to oesophagus or to pharynx, artificial epiglottis	A61F 2/203
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A61M 16/047

[N: Masks, filters, surgical pads, devices for absorbing secretions, specially adapted therefor]

Definition statement

This subclass/group covers:

Also plaster therefor

A61M 16/0472

[N: Devices for performing a tracheostomy]

Definition statement

This subclass/group covers:

Tools for making an opening.

A61M 16/0488

[N: Mouthpieces; Means for guiding, securing or introducing the tubes (guiding or introducing with laryngoscopes A61B1/267; holding devices on the body A61M25/02)]]

Definition statement

This subclass/group covers:

Also includes holders.

References relevant to classification in this group

This subclass/group does not cover:

Mouthpieces for live saving	A62B 9/06
Mouthpieces for divers	B63C 11/186
Mouthpieces in lung exercisers	A63B 23/18

Informative references

Attention is drawn to the following places, which may be of interest for search:

Holding devices on the body	A61M 25/02
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Obturator	K61M 16/04E18
Detecting from outside	A61B 5/06
Correcting deformities of the nose	A61F 5/08
Head rest	A61B 19/00B4 , A61G 13/12 , A61F 5/3707
Patient airway positioning	A61G 13/1215
Guiding or introducing with laryngoscopes	A61B 1/267

A61M 16/06

Respiratory or anaesthetic masks

Definition statement

This subclass/group covers:

Also hoods, cups

References relevant to classification in this group

This subclass/group does not cover:

Breathing masks in general	A62B 18/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Fabrication by injection moulding	B29C
Fabrication of gas mask	B29D 31/00N4
Half mask	A62B 18/025
First aid mask	A62B 17/04 , A62B 18/00
Correction of the deformities of the nose	A61F 5/08

Protective and/or surgical face mask	A41D 13/11
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A61M 16/0666

[N: Nasal cannulas or tubing(devices for improving normal breathing through the nose A61F5/08; nose filters A62B23/06; outside holding devices A61M25/02))]]

Definition statement

This subclass/group covers:
Also mounts for nasal tube.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices for improving normal breathing through the nose	A61F 5/08
Nose filters	A62B 23/06
Outside holding devices	A61M 25/02
Occluding, e.g. bellows	A61B 17/12022

A61M 16/0683

[N: Holding devices therefor]

Definition statement

This subclass/group covers:
Strap, headgear.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fastening means	A62B 18/084
Means for securing a tube	A61M 16/0488

Aquatic headgear	B63C 11/12
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A61M 16/08

Bellows; Connecting tubes [N: (having means for taking samples G01N1/22);]; Water traps]

Definition statement

This subclass/group covers:

Between a ventilator and the mask.

References relevant to classification in this group

This subclass/group does not cover:

Supports	F16M 11/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Having means for taking samples	G01N 1/22
Heated tubes	A61M 2016/1095
Tube support	A61M 2209/082

A61M 16/0808

[N: Condensation traps]

Definition statement

This subclass/group covers:

To dry the gas.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Vaporization chambers	A61M 16/18
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Drying gas	B01D 53/26
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A61M 16/0816

[N: Joints or connectors]

Definition statement

This subclass/group covers:

Connector: the element between the ventilation device and the tube

Informative references

Attention is drawn to the following places, which may be of interest for search:

Detection of the connection	A61M 2205/14
Wall plug	F16L 37/24 , F16L 37/107 , F16L 5/02 , F16L 29/02
Tube connector	A61M 39/10

A61M 16/0875

[N: Connecting tubes]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Hoses in general	F16L 11/00
Pipelines, hospital facility gas supply system	F17D 1/02
Tubes	A61M 39/08

A61M 16/10

Preparation of respiratory gases or vapours

Informative references

Attention is drawn to the following places, which may be of interest for search:

Local anaesthesia	A61M 19/00
Cryogenic reservoir	F17C 9/02
O2 for aircraft	A62B 7/14 , B64D 13/06

A61M 16/104

[N: specially adapted for anaesthetics (A61M16/18 takes precedence)]]

Definition statement

This subclass/group covers:

Mixer for anaesthetics with safety solution.

References relevant to classification in this group

This subclass/group does not cover:

Vaporizers	A61M 16/18
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Local anaesthesia	A61M 19/00
Adapted for anaesthesia	A61M 16/01
Veterinary applications	A61D 7/04
Mixing in general	B01F 3/02

A61M 16/1045

[N: Devices for humidifying or heating the inspired gas by using recovered moisture or heat from the expired gas]

Definition statement

This subclass/group covers:

HME, Heat and Moisture Exchanger, e.g. passive humidifier.

Informative references

Attention is drawn to the following places, which may be of interest for search:

CO2 canister	A61M 16/22
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Special rules of classification within this group

Also for anaesthetic agent.

A61M 16/105

[N: Filters (A61M16/047, A61M16/22 take precedence; water traps A61M16/0808)]

Definition statement

This subclass/group covers:

Gas filtering for medical purpose

References relevant to classification in this group

This subclass/group does not cover:

Masks, filters, surgical pads, devices for absorbing secretions, specially adapted therefor	A61M 16/047
CO2 canister	A61M 16/22

Informative references

Attention is drawn to the following places, which may be of interest for search:

Respiratory filter	A62B 7/10
Water traps	A61M 16/0808
Filter in general	B01D 46/00

A61M 16/1075

[N: by influencing the temperature (A61M16/1045 takes precedence)]]

Definition statement

This subclass/group covers:

The temperature of the gas or the liquid.

References relevant to classification in this group

This subclass/group does not cover:

Heat and Moisture Exchanger	A61M 16/1045
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Tube	A61M 16/08
Heating	A61M 2205/36
Biomedical electrical heating control	H05B 1/025

A61M 16/12

by mixing different gases

Informative references

Attention is drawn to the following places, which may be of interest for search:

Anaesthesia mixer	A61M 16/104
Filling gas container	F17C 5/06
Vessel with valves	F17C 13/045
Gas mixing in general	B01F 3/02

A61M 16/14

by mixing different fluids, one of them being in a liquid phase

Definition statement

This subclass/group covers:
Also powder mixing with gas.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Mixing in general	B01F 3/02
Sprayers with venturi	A61M 11/06

A61M 16/16

Devices to humidify the respiration air [N:(A61M16/1045 takes precedence)]

References relevant to classification in this group

This subclass/group does not cover:

Heat and Moisture Exchanger	A61M 16/1045
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Informative references

Attention is drawn to the following places, which may be of interest for search:

CO2 canister	A61M 16/22
Humidification in general	F24F 6/80 , F24F 6/18 , F22B 1/28
Steam bath	A61H 33/12
Passive humidifier	A61M 16/1045
Vaporizer	A61M 16/18

Mixing gas and liquid in general	B01F 3/04
Air-humidification, e.g. "room humidifiers"	F24F 6/00

A61M 16/162

[N: Water-reservoir filling system, e.g. automatic]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Filling systems in general	B65D 5/32
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A61M 16/18

Vaporising devices for anaesthetic preparations

Definition statement

This subclass/group covers:

Vaporizer for a product such as Halothane.

A61M 16/183

[N: Filling systems]

Definition statement

This subclass/group covers:

Anaesthetic-reservoir filling system; contains also level detection system therefor.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Level detection	A61M 2205/3379
Filling system	A61M 2209/045
Filling systems in general	B65D 5/32

A61M 16/186

[N: Locking systems]

Definition statement

This subclass/group covers:

System for safely locking a vaporizer to an anaesthesia machine; also for humidifier, bottles, switching system.

A61M 16/20

Valves specially adapted to medical respiratory devices

Definition statement

This subclass/group covers:

Also PEEP(Positive End Expiratory Pressure) valve.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Respiratory valve	A62B 9/02
Apparatus for passive exercising	A61H 1/00
Divers equipment	B63C 11/00
Valve in general	F16K
Breathing training devices	A63B 23/18
Medical valve	A61M 39/22

A61M 16/208

[N: Non-controlled one-way valves, e.g. exhalation, check, pop-off non-rebreathing valves]

Definition statement

This subclass/group covers:

Check valve.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Vibration means	A61M 2016/0006
Respiratory one-way valves	A62B 18/10
One-way valves in general	F16K 15/14 , F16K 15/16

Special rules of classification within this group

Also tanks

A61M 16/22

Carbon dioxide-absorbing devices; [N: Other means for removing carbon dioxide] (cartridges with absorbing substances for respiratory apparatus A62B19/00)

Definition statement

This subclass/group covers:

CO2 canister, soda-lime canister

Informative references

Attention is drawn to the following places, which may be of interest for search:

Cartridges with absorbing substances for respiratory apparatus	A62B 19/00
Filter	A61M 16/1045 , A61M 16/105

A61M 19/00

Local anaesthesia (syringes therefor A61M5/00); Hypothermia (A61M5/42 takes precedence; cooling blood in a bypass of the arterial system A61M1/36)

References relevant to classification in this group

This subclass/group does not cover:

Desensitising skin	A61M 5/42
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Syringes therefor	A61M 5/00
Cooling blood in a bypass of the arterial system	A61M 1/36
Cooling internal body cavities	A61F 7/12
Epidural puncture	A61B 17/3401

Special rules of classification within this group

The "subdivision" Indexing Code symbols (i.e. the non "parallel" Indexing Code symbols) are used for classifying as well the invention information as the additional information. They are stored only in the additional information field. The "orthogonal" Indexing Code symbols are also used.

A61M 21/00

Other devices or methods to cause a change in the state of consciousness; Devices for producing or ending sleep by mechanical, optical, or acoustical means, e.g. for hypnosis

Informative references

Attention is drawn to the following places, which may be of interest for search:

Measuring the level of relaxation	A61B 5/16
Body clock	A61N 5/06C3C
Light or sound exposure not directed to the corresponding sensory organ	A61N
Biorhythms	A61B 5/0033
Speech recognition	G10L 15/00

Tinnitus	H04R 25/00G4 , A61B 5/12B
Respiratory rhythm indicators	A63B 23/185

Special rules of classification within this group

The "subdivision" Indexing Code symbols (i.e. the non "parallel" Indexing Code symbols) are used for classifying as well the invention information as the additional information. They are stored only in the additional information field".The "orthogonal" Indexing Code symbols are also used.

A61M 21/0094

[N: Isolation chambers used therewith, i.e. for isolating individuals from external stimuli (other treatment rooms or enclosures A61G10/00)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Other treatment rooms or enclosures	A61G 10/00
Isolators	A61G 10/02
Bathing devices	A61H 33/00

A61M 21/02

for inducing sleep or relaxation, e.g. by direct nerve stimulation, hypnosis, analgesia (for massage A61H; electrotherapy A61N, e.g. applying alternating or intermittent electric currents for producing anaesthesia A61N1/34))

Informative references

Attention is drawn to the following places, which may be of interest for search:

For massage	A61H
Electrotherapy	A61N
Applying alternating or intermittent	A61N 1/34

electric currents for producing anaesthesia	
Electrical	A61N 1/3601 , A61N 1/36A5
Sleep evaluation	A61B 5/4806

A61M 25/00

Catheters; Hollow probes

Definition statement

This subclass/group covers:

This main group covers:

Static features, like structure, shape, mechanical properties and method of making of catheters.

References relevant to classification in this main group

This subclass/group does not cover:

Peritoneal catheter	A61M 1/285
Tracheal tubes	A61M 16/04
Dynamic features of catheters, like steering, guiding and advancing	A61M 25/01
Drainage tubes	A61M 27/00
Catheters for natural cavities (e.g. uterus, vagina, rectum)	A61M 31/00
Surgical instruments	A61B 17/00
Surgical instruments for veterinary use	A61D 1/00
Feeding tubes	A61J 15/00
Materials for catheters	A61L 29/00

Special rules of classification within this main group

[A61M 25/00](#) to [A61M 29/02](#) comprises subgroups which cover technical features (e.g. [A61M 25/10](#): Balloon catheters, [A61M 25/002](#): Packages for catheters), as well as subgroups which cover uses (e.g. [A61M 25/0017](#): long-term hygiene, [A61M 25/01](#): for introducing, guiding, advancing, emplacing or holding, [A61M 25/02](#): holding, [A61M 25/104](#): Balloon catheters for angioplasty). Therefore a kind of indexed classification is sometimes possible.

Technical features, which appear to be the "invention", are often covered only by Indexing Code subgroups and have a classification in the next higher in hierarchy group. Therefore classification should be done as follows:

classify the "main use" into the relevant subgroup, if the subgroup exists;

classify the technical features, which appear to be the "invention", into the relevant subgroups, if the subgroups exist;

if neither a subgroup for the "main use" nor for the technical feature, which appears to be the "invention", exists then classify the technical features, which appear to be the "invention", into the relevant Indexing Code subgroups, and classify the document into the next higher in hierarchy group;

additional technical features (technical features which appear not to be the "invention"), but which are interesting for search reasons, e.g. new combination of features, detailed explanation of features, uses etc., should be classified always only into the relevant Indexing Code subgroups.

A61M 2025/0002

with a pressure sensor at the distal end

Definition statement

This subclass/group covers:

Catheters with additional pressure sensors

Sensors at the distal end are only used for pressure measurement

The sensor is at the distal end, i.e. within the body during a measurement.

No details of pressure sensor or pressure measurement

The features "pressure sensor", "pressure measurement" are only additional features of the invention and not the invention itself

References relevant to classification in this group

This subclass/group does not cover:

Pressure measurement catheters, details of pressure measurement, pressure sensors and other sensors	A61B 5/00
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A61M 2025/0003

having an additional lumen transmitting fluid pressure to the outside for measurement

Definition statement

This subclass/group covers:

Catheters with additional pressure sensors

Sensors are only used for pressure measurement.

The sensor is at the proximal end or outside of the catheter.

No details of pressure sensor or pressure measurement.

In this subgroup the features "pressure sensor", "pressure measurement" are only additional features of the invention and not the invention itself

References relevant to classification in this group

This subclass/group does not cover:

Pressure measurement catheters, details of pressure measurement, pressure sensors and other sensors	A61B 5/00
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A61M 2025/0004

having two or more concentrically arranged tubes for forming a concentric catheter system

Definition statement

This subclass/group covers:

Catheter system, comprising concentric catheter tubes movable with respect to each other

Systems with two or more tubes/catheters within each other in a concentric way forming one entity

References relevant to classification in this group

This subclass/group does not cover:

Catheters having telescopic features, interengaging nestable members movable in relation to one another	A61M 2025/0175
Systems with catheter and outer tubing	A61M 2025/0681

A61M 2025/0007

Epidural catheters

Definition statement

This subclass/group covers:

The use of catheters as epidural, peridural, peritoneal and spinal catheters; the terms "epidural, peridural, peritoneal, spinal" trigger the classification into this subgroup.

References relevant to classification in this group

This subclass/group does not cover:

Puncturing needles	A61B 17/3401
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Informative references

Attention is drawn to the following places, which may be of interest for search:

For the use in the brain or cerebrum	K61M 211/520
For the use in the spinal column	K61M 211/60

A61M 2025/0008

having visible markings on its surface, i.e. visible to the naked eye, for any purpose, e.g. insertion depth markers, rotational markers or identification of type

Definition statement

This subclass/group covers:

Visible (optical) markers on catheters, tubes or guide wires.

References relevant to classification in this group

This subclass/group does not cover:

Radio-opaque and ultrasound marker on catheters or medical tubes	A61M 25/0108
Magnetic marker on catheters or medical tubes	A61M 25/0127
Radio-opaque markers on guide wires	A61M 2025/09166
Visible markers which specifically belong to surgical instruments	A61B 17/00R A61B 2017/00796

Informative references

Attention is drawn to the following places, which may be of interest for search:

Optical identification means	A61M 2205/6063
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A61M 25/0009

Making of catheters or other medical or surgical tubes

Definition statement

This subclass/group covers:

- Methods and processes of making and manufacturing of catheters and medical or surgical tubes
- This subgroup covers as well apparatus for manufacturing, which are specifically used for producing catheters

References relevant to classification in this group

This subclass/group does not cover:

Connections between catheter tubes and inflation tubes	A61M 25/1025
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Method of making balloon catheters	A61M 25/1027
Method of making a guide wire	A61M 2025/09108
Making of surgical instruments	A61B 17/00
Making of surgical instruments for transferring non-mechanical forms of energy (specific features for such devices, e.g. electrodes, cryotips)	A61B 18/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Making of catheters	L29C 535/14
Devices for applying a coating	B05C
Process for applying a coating	B05D
Cutting tools	B26B

For a single-step process, or a specific step in a multi-step process:

Injection moulding	B29C 45/00
Extrusion moulding	B29C 47/00
Blow moulding	B29C 49/00
Shaping by stretching, e.g. drawing through a die	B29C 55/22
Shaping of tube ends	B29C 57/00
Lining or sheathing	B29C 63/00
Joining	B29C 65/00

For a multi-step process:

Producing tubular articles	B29D 23/00
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Special rules of classification within this group

If a process leads to an interesting product, classify as well in the relevant Indexing Code subgroup

A61M 25/001

Forming the tip of a catheter, e.g. bevelling process, join or taper

Definition statement

This subclass/group covers:

Also apparatus for manufacturing, which are specifically used for forming the tip of a catheter.

References relevant to classification in this group

This subclass/group does not cover:

Method of making balloon catheters	A61M 25/1027
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Catheter characterised by the distal end	A61M 25/0067
Cutting tools	B26B
Injection moulding	B29C 45/00
Extrusion moulding	B29C 47/00
Blow moulding	B29C 49/00
Shaping of tube ends	B29C 57/00
Joining	B29C 65/00

Special rules of classification within this group

If a process leads to an interesting product, classify as well in the relevant Indexing Code subgroup of [A61M 25/0067](#)

A61M 25/0012

with embedded structures, e.g. coils, braids, meshes, strands or radiopaque coils

Definition statement

This subclass/group covers:

Methods or processes of making or manufacturing of catheters or medical or surgical tubes, which have structures made of different materials incorporated into bulk material, e.g. through moulding, or in-between two coatings.

This subgroup covers also apparatus for manufacturing, which are specifically used for embedding structures into catheters.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Catheters with embedded materials	A61M 25/005
Devices for applying a coating	B05C
Process for applying a coating	B05D
Injection moulding	B29C 45/00
Extrusion moulding	B29C 47/00
Blow moulding	B29C 49/00
Lining or sheathing	B29C 63/00
Producing tubular articles	B29D 23/00

Special rules of classification within this group

If a process leads to an interesting product, classify as well in the relevant Indexing Code subgroup [A61M 25/005](#)

A61M 25/0013

Weakening parts of a catheter tubing, e.g. by making cuts in the tube or reducing thickness of a layer at one point to adjust the flexibility

Definition statement

This subclass/group covers:

This group covers as well apparatus for manufacturing, which are specifically used for weakening parts of catheter tubings.

References relevant to classification in this subgroup

This subclass/group does not cover:

Tip steering due to weakening outer material	A61M 25/0138
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Catheters with regions for increasing flexibility	A61M 25/0054
Cutting tools	B26B

Special rules of classification within this group

If a process leads to an interesting product, classify as well in the relevant Indexing Code subgroups of [A61M 25/0054](#)

A61M 25/0014

Connecting a tube to a hub

Definition statement

This subclass/group covers:

This group covers as well apparatus for manufacturing, which are specifically used for connecting a catheter tube to a hub

References relevant to classification in this group

This subclass/group does not cover:

Connections between catheter tubes and inflation tubes	A61M 25/1025
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Joining	B29C 65/00
Tube connectors; tube couplings	A61M 39/10
Characterised by the hub	A61M 25/0097

Special rules of classification within this group

If a process leads to an interesting product, classify as well in the relevant Indexing Code subgroup [A61M 25/0097](#)

A61M 25/0015

Making lateral openings in a catheter tube, e.g. holes, slits, ports, piercings of guide wire ports; Methods for processing the holes, e.g. smoothing the edges

Definition statement

This subclass/group covers:

This group covers as well apparatus for manufacturing, which are specifically used to make lateral openings in a catheter tube

Informative references

Attention is drawn to the following places, which may be of interest for search:

Side holes	A61M 25/007
Cutting tools	B26B

A61M 25/0017

especially adapted for long-term hygiene care, e.g. urethral or indwelling catheters to prevent infections

Definition statement

This subclass/group covers:

- All catheters which stay in the body for a prolonged period of time and are specially adapted therefore, e.g. antimicrobial coatings, surface properties, drainage
- Urinary catheters (used within the bladder, urethra, etc.) only for long-term use
- All catheters which stay in the body for a prolonged period of time and are therefore specially adapted to reduce the risks of a long term treatment (e.g. inflammation, clotting), e.g. by coatings, surface properties

Informative references

Attention is drawn to the following places, which may be of interest for search:

Closure means for urethra	A61F 2/0004
Devices worn by the patient for reception of urine	A61F 5/44
Drainage catheters	A61M 27/00

A61M 2025/0019

Cleaning catheters or the like, e.g. for reuse of the device, for avoiding replacement

Definition statement

This subclass/group covers:

- Cleaning the catheter from the inside and/or outside.
- Cleaning with or without solutions.
- Cleaning with or without mechanical means, e.g. brush.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Cleaning pipes or tubes, external surfaces	B08B 9/023
Cleaning pipes or tubes, internal surfaces	B08B 9/027

Special rules of classification within this group

Give [A61M 25/00](#) in addition to the Indexing Code subgroup [A61M 2025/0019](#), if only a process or an apparatus for cleaning a catheter or medical tube is disclosed.

Otherwise give the most relevant classification symbol, e.g. cleaning a balloon catheter with a special shape: [A61M 25/1002](#) and [A61M 2025/0019](#).

A61M 25/002

Packages specially adapted therefor

Definition statement

This subclass/group covers:

Packages only for catheters, medical tubes and guide wires

References relevant to classification in this group

This subclass/group does not cover:

Casings for packaging, protecting or dispensing (surgical) articles	A61B 19/026
Packages specially adapted for devices for bringing media into the body in a subcutaneous, intra-vascular or intramuscular way	A61M 5/002
Packages or dispensers for (surgical) needles or sutures	A61B 17/06114
Aseptic insertion devices	A61M 25/0111
Catheter dispensers	A61M 25/0113
Packages or dispensers for prostheses or other implants	A61F 2/0095

Informative references

Attention is drawn to the following places, which may be of interest for search:

Containers, packaging elements or packages specially adapted for particular articles or materials	B65D 85/00
Containers, packaging elements or packages for contents presenting particular transport or storage problems	B65D 81/00
Containers or packaging with special means for dispensing contents (i.e. to take things out of a package)	B65D 83/00
Containers, packaging elements or packages specially adapted for particular articles or materials	B08B 9/02

A61M 25/0021

characterised by the form of the tubing

Definition statement

This subclass/group covers:

Tubings with specific shapes of the outer tubing or the inner lumen, e.g. rectangular outer tubing

References relevant to classification in this group

This subclass/group does not cover:

With regions for increasing flexibility (takes precedence)	A61M 25/0054
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A61M 2025/0024

Expandable catheters or sheaths

Definition statement

This subclass/group covers:

Catheters, medical tubes or sheaths which are expandable over their entire or at least sufficient length (not tip only)

References relevant to classification in this group

This subclass/group does not cover:

Balloon catheter	A61M 25/10
Dilators	A61M 29/00
For holding in lumen	A61M 25/04

Informative references

Attention is drawn to the following places, which may be of interest for search:

Guide tubes	A61M 25/0662
Trocars; Puncturing needles, details of tips or shafts	A61B 17/3421

A61M 2025/0025

having a collapsible lumen

Informative references

Attention is drawn to the following places, which may be of interest for search:

Trocars; Puncturing needles, details of tips or shaft	A61B 17/3421
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A61M 25/0026

Multi-lumen catheters with stationary elements

Definition statement

This subclass/group covers:

- Tubes defining the multi-lumens or the multi-lumens themselves do not move relative to each other
- Aspiration and irrigation catheters should be classified into this group as well
- Only multi-lumen catheters

References relevant to classification in this group

This subclass/group does not cover:

Balloon catheters	A61M 25/10
Concentric catheters	A61M 2025/0004
Catheter tip with multiple lumens	A61M 25/0071

Informative references

Attention is drawn to the following places, which may be of interest for search:

Drainage tubes; Aspiration tips	A61M 1/008
Catheters for dialysis	A61M 1/285
Interfaces of extra-corporeal blood circuits	A61M 1/3653

A61M 25/0028

characterised by features relating to (at least) one lumen at the proximal part of the catheter, e.g. alteration in lumen shape or valves

Definition statement

This subclass/group covers:

- Multilumen catheters with features relating to the proximal part of the lumens
- Only multi-lumen catheters

References relevant to classification in this group

This subclass/group does not cover:

characterised by the hub	A61M 25/0097
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A61M 25/0029

characterised by features relating to (at least) one lumen at the middle part of the catheter, e.g. slots, flaps, valves, cuffs, apertures, notches, grooves or rapid exchange ports

Definition statement

This subclass/group covers:

- Multilumen catheters with features relating to the middle part of the lumens
- Only multi-lumen catheters

References relevant to classification in this group

This subclass/group does not cover:

Side holes at distal tip	A61M 25/007
Balloon catheter	A61M 25/10
Having a special surface topography or special surface properties	A61M 2025/006

A61M 25/003

characterised by features relating to (at least) one lumen at the distal part of the catheter, e.g. filters, plugs or valves

Definition statement

This subclass/group covers:

- Multilumen catheters with features relating to the distal part of the lumens
- Only multi-lumen catheters

References relevant to classification in this group

This subclass/group does not cover:

Distal tip features generally	A61M 25/0067
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A61M 2025/0031

having lumens for withdrawing and delivering, i.e. used for extracorporeal circuit treatment

Informative references

Attention is drawn to the following places, which may be of interest for search:

Extra-corporeal blood circuits	A61M 1/3621
Catheters for dialysis	A61M 1/285

A61M 25/0041

pre-formed, e.g. specially adapted to fit with the anatomy of body channels

References relevant to classification in this group

This subclass/group does not cover:

Implantable prosthesis in hollow or tubular parts of organs	A61F 2/04
Pre-shaped drainage appliances, for use in the urethral or ureteral tract	A61M 27/008
Pre-shaped guide wires	A61M 25/09
Tip steering with pre-shaped mechanisms	A61M 25/0152

A61M 2025/0042

Micro catheters, cannula or the like having outside diameters around 1 mm or less

Definition statement

This subclass/group covers:

Classify documents into this group if the outer diameter of a catheter is 1 mm or less or the word "micro catheters", etc. is used.

A61M 25/0045

multi-layered, e.g. coated

Definition statement

This subclass/group covers:

Multi-layer structures of catheters made e.g. by coating tubes, by coextruding tubes, by laminating tubes

References relevant to classification in this group

This subclass/group does not cover:

Coating materials	A61L 29/00K
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A61M 2025/0046

Coatings for improving slidability

References relevant to classification in this group

This subclass/group does not cover:

Coating materials	A61L 29/00K
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A61M 25/005

with embedded materials, e.g. wires, coils

Definition statement

This subclass/group covers:

Features to reinforce catheter tubes.

References relevant to classification in this group

This subclass/group does not cover:

Methods of making catheters with	A61M 25/0012
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embedded structures	
Tip steering due to inner reinforcing means	A61M 25/0144
Improve flexibility of catheters	A61M 25/0054

A61M 25/0051

made from fenestrated or weakened tubing layer

Definition statement

This subclass/group covers:

Catheter tubes reinforced by using an embedded fenestrated additional tube

References relevant to classification in this group

This subclass/group does not cover:

Reinforcement by embedded coils or braids	A61M 25/005
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A61M 25/0054

with regions for increasing flexibility

References relevant to classification in this group

This subclass/group does not cover:

Method of making catheters by weakening parts of a catheter tubing, e.g. by making cuts in the tube or reducing thickness of a layer at one point to adjust the flexibility	A61M 25/0013
Tip steering due to weakening outer material	A61M 25/0138
Tip steering due to material with different mechanical properties	A61M 25/0141

Informative references

Attention is drawn to the following places, which may be of interest for search:

Catheters having a soft tip	A61M 2025/0081
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A61M 2025/0056

provided with an antibacterial agent, e.g. by coating, residing in the polymer matrix or releasing an agent out of a reservoir

References relevant to classification in this group

This subclass/group does not cover:

Drug delivery coatings	A61M 2025/0057
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Biological active materials	A61L 29/16
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A61M 2025/0057

Catheters delivering medicament other than through a conventional lumen, e.g. porous walls or hydrogel coatings

Definition statement

This subclass/group covers:

Catheters using unconventional ways for medicament delivery, e.g. through porous walls, hydrogel coatings with incorporated medicaments, through coils.

References relevant to classification in this group

This subclass/group does not cover:

Antibacterial coatings	A61M 2025/0056
Side openings	A61M 25/007

Informative references

Attention is drawn to the following places, which may be of interest for search:

Biological active materials	A61L 29/16
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A61M 2025/0058

having an electroactive polymer material, e.g. for steering purposes, for control of flexibility, for locking, for opening or closing

References relevant to classification in this group

This subclass/group does not cover:

Tip steering	A61M 25/0158
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Materials for catheters characterised by their function	A61L 29/14
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A61M 2025/006

having a special surface topography or special surface properties, e.g. roughened or knurled surface

Definition statement

This subclass/group covers:

Catheters with an unusual surface topography for solving technical problems, e.g. roughened surface for increasing friction between tissue and catheter.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Endoscopes with roughened shaft	A61B 1/00075
Endoscopes with grooved shaft	A61B 1/00073

A61M 2025/0062

having features to improve the sliding of one part within another by using lubricants or surfaces with low friction

Definition statement

This subclass/group covers:

Catheters which have specific features to reduce frictions, e.g. roughened surface, lubricants, in use with a second entity, e.g. guidewire.

No bearings or the like

References relevant to classification in this group

This subclass/group does not cover:

Coatings	A61M 2025/0046
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A61M 2025/0063

having means, e.g. stylets, mandrils, rods or wires to reinforce or adjust temporarily the stiffness, column strength or pushability of catheters which are already inserted into the human body

Definition statement

This subclass/group covers:

Means for changing the mechanical properties, that are inserted while the catheter is already in place within the human body

Informative references

Attention is drawn to the following places, which may be of interest for search:

Catheters or medical tubes with inner stiffening members, which will be inserted into the catheter only for insertion or introduction purposes, i.e. they will be inserted while the catheter is introduced into the body and removed after insertion of the catheter into the body.	A61M 25/0102
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Endoscopes with stiffening means	A61B 1/0078
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A61M 25/0067

characterised by the distal end, e.g. tips

References relevant to classification in this group

This subclass/group does not cover:

With regions for increasing flexibility (takes precedence)	A61M 25/0054
Holding in the body (takes precedence)	A61M 25/04
Balloon catheters	A61M 25/10
Surgical instruments for transferring non-mechanical energy to the body (ablation)	A61B 18/00
Tip steering	A61M 25/0133

Informative references

Attention is drawn to the following places, which may be of interest for search:

Surgical instruments for scraping out cavities of body organs	A61B 17/22
Distal tips of endoscopes	A61B 1/0008

A61M 25/0068

Static characteristics of the catheter tip, e.g. shape, atraumatic tip, curved tip or tip structure

Definition statement

This subclass/group covers:

- Tip structure can be internal (i.e. inside the lumen) or external (i.e.

outside the lumen onto the catheter shaft)

- Curved tip refers to an angled distal tip with respect to the rest of the catheter shaft,
- Tips specially adapted to fit with the anatomy of body channels should not be classified here
- Atraumatic tips which are atraumatic because of their shape (and not because of material choice).

References relevant to classification in this group

This subclass/group does not cover:

Pre-formed, e.g. specially adapted to fit with the anatomy of body channels	A61M 25/0041
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Special rules of classification within this group

Check whether atraumatic tip should also be classified in [A61M 25/008](#) and/or [A61M 2025/0081](#).

A61M 25/0069

Tips not integral with tube

Definition statement

This subclass/group covers:

Separate tips either of the same material as the proximal tube and attached by e.g. gluing, welding or of a different material than the proximal tube

A61M 25/007

Side holes, e.g. their profiles or arrangement; Provisions to keep side holes unblocked

References relevant to classification in this group

This subclass/group does not cover:

Catheter with injection needles	A61M 25/0084
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Side holes for perfusion	A61M 2025/1095
Side holes for perfusion	A61M 2025/1097
Needles for infusion	A61M 5/158

A61M 25/0071

Multiple separated lumens

Definition statement

This subclass/group covers:

When main catheter lumens split into several lumens only at the distal tip of the catheter.

References relevant to classification in this group

This subclass/group does not cover:

Multi-lumen catheters with stationary elements	A61M 25/0026
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A61M 25/0074

Dynamic characteristics of the catheter tip, e.g. openable, closable, expandable or deformable

References relevant to classification in this group

This subclass/group does not cover:

Balloon catheters	A61M 25/10
Expandable structures for holding within the body	A61M 25/04
Tools at the distal tip	A61M 25/0082

A61M 25/0075

Valve means

Definition statement

This subclass/group covers:
Valves at the distal tip

References relevant to classification in this group

This subclass/group does not cover:

Cerebrospinal drainage, e.g. valves	A61M 27/006
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Valves (if the disclosure of the document emphasises the details of a valve)	A61M 39/22
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A61M 2025/0079

Separate user activated means or devices, e.g. guide wires, guide tubes, balloon catheters or sheaths, with means for sealing off an orifice of a catheter, e.g. for sealing lumen or side holes

Definition statement

This subclass/group covers:
Only the sealing of a catheter or tube lumen with a separate device

References relevant to classification in this group

This subclass/group does not cover:

Occlusion of natural lumens	A61M 25/10Z4
Catheter with collapsible lumen	A61M 2025/0025

Informative references

Attention is drawn to the following places, which may be of interest for search:

Guide wire having a balloon	A61M 2025/09008
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A61M 2025/0081

having a soft tip

Informative references

Attention is drawn to the following places, which may be of interest for search:

Catheters having regions for increasing flexibility	A61M 25/0054
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A61M 25/0082

Catheter tip comprising a tool

Definition statement

This subclass/group covers:

- Tools at the distal tip of a catheter
- A tool is a device which interacts with the surrounding tissue, i.e. it has an impact on the patient
- Tools can be internal (i.e. inside the lumen) or external (i.e. outside the lumen onto the catheter shaft) but linked to the catheter

References relevant to classification in this group

This subclass/group does not cover:

Pre-formed, e.g. specially adapted to fit with the anatomy of body channels	A61M 25/0041
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A61M 25/0084

having one or more injection needles

Definition statement

This subclass/group covers:

- Catheters with needles for drug delivery into the surrounding tissue
- Catheters with needles for holding and for drug delivery
- If the details of the construction of a catheter with a needle appears to be the "invention" (the technical feature is the "invention"), then it should be classified here

References relevant to classification in this group

This subclass/group does not cover:

Drug delivery through needles without catheter	A61M 5/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Endoscopic needles	A61B 17/3478
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Special rules of classification within this group

Please propose the following classes as well:

Solid needle for holding [A61M 2025/0095](#)

Holding in a body lumen [A61M 25/04](#)

If the medical treatment of a body with such a catheter appears to be the "invention" (the use is the "invention") [A61B 17/3478](#)

If no catheter is disclosed, only drug delivery [A61M 5/00](#)

A61M 2025/0086

the needles having bend distal tips, i.e. the distal tips are angled in relation to the longitudinal axis of the catheter

Definition statement

This subclass/group covers:

A catheter with multiple needles at its distal end, The needles are protruding along the longitudinal axis of the catheter. The tip of the needles themselves are bend out of plane and are therefore no longer parallel to the longitudinal axis of the catheter

A61M 2025/009

the needle has a bend distal tip, i.e. the distal tip is angled in relation to the longitudinal axis of the catheter

Definition statement

This subclass/group covers:

A catheter with a single needle at its distal end, The needle is protruding along the longitudinal axis of the catheter. The tip of the needle itself is bend out of plane and is therefore not any longer parallel to the longitudinal axis of the catheter

A61M 2025/0093

wherein at least one injection needle is a microneedle

References relevant to classification in this group

This subclass/group does not cover:

Details of microneedles	A61M 37/0015
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A61M 2025/0095

having one or more needles protruding from the distal tip which are not used for injection or electro-stimulation, e.g. for fixation purposes

References relevant to classification in this group

This subclass/group does not cover:

Introducing instruments through an endoscopic needle	A61B 17/3478
Electrodes for stimulation	A61N 1/04

Informative references

Attention is drawn to the following places, which may be of interest for search:

Holding in a body lumen	A61M 25/04
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A61M 2025/0096

having laterally outward extensions or tools, e.g. hooks or fibres

References relevant to classification in this group

This subclass/group does not cover:

Catheters with injection needles	A61M 25/0084
Catheters with solid needles e.g. for holding	A61M 2025/0095
Electrodes	A61N 1/04

Informative references

Attention is drawn to the following places, which may be of interest for search:

Surgical instruments for scraping out cavities of body organs	A61B 17/22
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A61M 25/0097

characterised by the hub

Definition statement

This subclass/group covers:

- Hubs for introducing fluid or other devices
- Handles without steering purpose

References relevant to classification in this group

This subclass/group does not cover:

Method of connecting a hub to a tubing	A61M 25/0014
Handles for tip steering	A61M 25/10C10A

Informative references

Attention is drawn to the following places, which may be of interest for search:

Tube connectors; tube couplings	A61M 39/10
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A61M 25/01

Introducing, guiding, advancing, emplacing or holding catheters

Definition statement

This subclass/group covers:

This main group covers:

- Dynamic features of catheters and medical tubes, e.g. advancing, guiding, steering
- Holding devices for catheters or medical tubes
- Guide tubes and guide needles
- Guide wires

References relevant to classification in this group

This subclass/group does not cover:

Balloon catheter	A61M 25/10
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A61M 25/0102

Insertion or introduction using an inner stiffening member, e.g. stylet or push-rod

Definition statement

This subclass/group covers:

Catheters or medical tubes with inner stiffening members, which will be inserted into the catheter only for insertion or introduction purposes, i.e. they will be inserted while the catheter is introduced into the body and removed after insertion of the catheter into the body.

References relevant to classification in this group

This subclass/group does not cover:

Means for changing the mechanical properties, that are inserted while the catheter is already in place within the human body	A61M 2025/0063
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A61M 25/0105

Steering means as part of the catheter or advancing means; Markers for positioning

Definition statement

This subclass/group covers:

- Steering means for steering the whole catheter, which are part of a catheter and not a separate device
- Markers, which are located on the catheter or medical tube
- If the markers are interesting for the identification of catheters or medical tubes (not marker specially adapted for surgical instruments)

References relevant to classification in this group

This subclass/group does not cover:

Systems for detection of markers, without using radiation or US	A61B 5/06
Systems for detection of markers, using radiation	A61B 6/12
Systems for detection of markers, without using US	A61B 8/0833
Markers, which specifically belong to surgical instruments	A61B 19/00R
Radio-opaque markers on guide wires	A61M 2025/09166
Surgical robots for guiding instruments in the body; if the control device of this robots is outside the body of the patient	A61B 19/00M2 K61B 19/00M2C

Tip steering	A61M 25/0133
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Endoscopes, for steering device is disclosed	A61B 1/005
Radio-opaque indicia	A61M 2205/32

Special rules of classification within this group

All markers should additionally be sent to [A61B 19/00R](#)

A61M 25/0108

using radio-opaque or ultrasound markers

Definition statement

This subclass/group covers:

If the markers are interesting for the identification of catheters or medical tubes (not marker specially adapted for surgical instruments)

References relevant to classification in this group

This subclass/group does not cover:

Ultrasound markers, which specifically belong to surgical instruments	K61B 19/00R4
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A61M 25/0111

Aseptic insertion devices

References relevant to classification in this group

This subclass/group does not cover:

Tracheal tubes combined with catheters	A61M 16/0463
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A61M 25/0113

Mechanical advancing means, e.g. catheter dispensers

Definition statement

This subclass/group covers:

Devices which are adapted mechanically for moving a catheter in respect to the patient, e.g. catheter dispenser, mechanical catheter insertion devices

References relevant to classification in this group

This subclass/group does not cover:

Guide wire insertion devices	A61M 25/09041
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A61M 25/0116

self-propelled, e.g. autonomous robots

Definition statement

This subclass/group covers:

Self-propelled devices, where the control of such devices is within the device and not outside the patient

References relevant to classification in this group

This subclass/group does not cover:

Advancing means having fluid drives by external fluid in an open fluid circuit (takes precedence)	A61M 25/0122
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Micromanipulators	K61B 19/00M4
Endoscopes using self-propulsion, e.g. capsule endoscopes, if a camera is part of the device	A61B 1/00156

A61M 25/0122

with fluid drive by external fluid in an open fluid circuit

References relevant to classification in this group

This subclass/group does not cover:

Bodily fluids	A61M 25/0125
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Endoscopes using self-propulsion, e.g. capsule endoscopes	A61B 1/00156
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A61M 25/0125

**Catheters carried by the bloodstream, e.g. with parachutes;
Balloon catheters specially designed for this purpose**

Informative references

Attention is drawn to the following places, which may be of interest for search:

Endoscopes using self-propulsion, e.g. capsule endoscopes	A61B 1/00156
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A61M 25/0127

Magnetic means; Magnetic markers

Definition statement

This subclass/group covers:

Magnetic means for guiding a catheter through the body, e.g. system which uses a catheter with a magnet, not marker, and an outer magnetic field for moving the catheter through the body of a patient.

Magnetic markers, which are located on the catheter or medical tube.

References relevant to classification in this group

This subclass/group does not cover:

Magnetic markers, which specifically belong to surgical instruments	A61B 19/00R K61B 19/00R10
Systems for detection of markers, without using radiation or US	A61B 5/06

A61M 25/0133

Tip steering devices

References relevant to classification in this group

This subclass/group does not cover:

Steering of the whole catheter	A61M 25/0105
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Endoscopes	A61B 1/005
Ablation catheters	A61B 18/1492

A61M 25/0138

having flexible regions as a result of weakened outer material, e.g. slots, slits, cuts, joints or coils

Informative references

Attention is drawn to the following places, which may be of interest for search:

Regions for increasing flexibility	A61M 25/0054
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A61M 25/0141

having flexible regions as a result of using materials with different mechanical properties

Informative references

Attention is drawn to the following places, which may be of interest for search:

Regions for increasing flexibility	A61M 25/0054
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A61M 25/0144

having flexible regions as a result of inner reinforcement means, e.g. struts or rods

Informative references

Attention is drawn to the following places, which may be of interest for search:

Embedded materials	A61M 25/005
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A61M 25/0152

with pre-shaped mechanisms, e.g. pre-shaped stylets or pre-shaped outer tubes

Informative references

Attention is drawn to the following places, which may be of interest for search:

Pre-formed catheters	A61M 25/0041
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A61M 2025/0175

having telescopic features, interengaging nestable members movable in relations to one another

Definition statement

This subclass/group covers:

Catheters or medical tubes which can adapt their length thanks to a telescopic structure

References relevant to classification in this group

This subclass/group does not cover:

Concentric catheters; Systems with two or more tubes/catheters within each other in a concentric way	A61M 2025/0004
Systems with catheter and outer tubing	A61M 2025/0681

A61M 2025/0177

having external means for receiving guide wires, wires or stiffening members, e.g. loops, clamps or lateral tubes

Definition statement

This subclass/group covers:

External means, e.g. hooks, loops, for receiving wire shaped objects, except standard rapid exchange or monorail catheters with standard guidewire guiding means, e.g. short tubes

References relevant to classification in this group

This subclass/group does not cover:

Locking guide wires	A61M 2025/09125
Rapid exchange or monorail catheters with standard guidewire guiding means	A61M 2025/0183

Special rules of classification within this group

Rapid exchange (rx) or monorail catheters with non standard guidewire guiding means, e.g. hooks, loops, should be classified here and in [A61M 2025/0183](#)

A61M 2025/0183

Rapid exchange or monorail catheters

Definition statement

This subclass/group covers:

Monorail or rapid exchange (rx) catheters have in contrast to the over the wire

catheters only a short guidewire lumen which is parallel over a short distance to the catheter tube.

References relevant to classification in this group

This subclass/group does not cover:

Balloon catheters having a guide wire lumens outside the main shaft, i.e. the guide wire lumen is within or on the surface of the balloon	A61M 2025/1056
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Rapid exchange or monorail catheters as well in	A61F 2/84 , A61N , A61B 17/00
Balloon catheters	A61M 25/10

Special rules of classification within this group

Rapid exchange (rx) or monorail catheters with non standard guidewire guiding means, e.g. hooks, loops, should be classified here and in [A61M 2025/018](#)

A61M 25/0194

Tunnelling catheters

Definition statement

This subclass/group covers:

Catheters which have a distal portion that enters the human body, leaving it and entering it again to create a fixation outside the human body

References relevant to classification in this group

This subclass/group does not cover:

For creating an artificial passage within the body	A61M 2025/0197
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A61M 2025/0197

for creating an artificial passage within the body, e.g. in order to go around occlusions

References relevant to classification in this group

This subclass/group does not cover:

For fixation outside the body	A61M 25/0194
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A61M 25/02

Holding devices, e.g. on the body

Definition statement

This subclass/group covers:

Holding of catheters, medical tubes and guide wires

A61M 2025/022

specifically adapted for the mouth

Informative references

Attention is drawn to the following places, which may be of interest for search:

Mouth	K61M 211/30
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A61M 2025/0226

specifically adapted for the nose

Informative references

Attention is drawn to the following places, which may be of interest for search:

Nose	K61M 211/20
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A61M 2025/0233

specifically adapted for attaching to a body wall by means

which are on both sides of the wall, e.g. for attaching to an abdominal wall

Informative references

Attention is drawn to the following places, which may be of interest for search:

Gastrostomy feeding tubes	A61J 15/00A
Fixing Trocars	A61B 2017/348

A61M 2025/0266

using pads, patches, tapes or the like

Informative references

Attention is drawn to the following places, which may be of interest for search:

Adhesive plasters	A61F 13/02
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A61M 2025/0293

Catheter, guide wire or the like with means for holding, centering, anchoring or frictionally engaging the device within an artificial lumen, e.g. tube

References relevant to classification in this group

This subclass/group does not cover:

Holding within a natural lumen, e.g. vessel	A61M 25/04
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A61M 25/04

in the body, e.g. expansible

Definition statement

This subclass/group covers:

- Expandable devices for holding (not balloons)

- Other mechanisms

References relevant to classification in this group

This subclass/group does not cover:

Balloon catheters	A61M 25/10
Tracheal tubes, means for securing the tubes	A61M 16/0488

A61M 25/06

Body-piercing guide needles or the like

Informative references

Attention is drawn to the following places, which may be of interest for search:

Trocars; Puncturing needles (usually for introducing bigger sized instruments or tubes)	A61B 17/34
Needles	A61M 5/158
Needles	A61M 5/32

A61M 25/0606

"Over-the-needle" catheter assemblies, e.g. I.V. catheters

Definition statement

This subclass/group covers:

Systems of a body piercing needle and catheter, catheter will be delivered over the needle for introduction into the body.

References relevant to classification in this group

This subclass/group does not cover:

Guide needles, where the catheter will be delivered within the needle for introduction into the body	A61M 25/065
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A61M 25/0612

Devices for protecting the needle; Devices to help insertion of the needle, e.g. wings or holders

Definition statement

This subclass/group covers:

Needle protection devices, only if a catheter is part of the device

References relevant to classification in this group

This subclass/group does not cover:

Needle protection devices for assemblies without catheters	A61M 5/321
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A61M 25/0631

having means for fully covering the needle after its withdrawal, e.g. needle being withdrawn inside the handle or a cover being advanced over the needle

Informative references

Attention is drawn to the following places, which may be of interest for search:

Retractable needles	A61M 5/322
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A61M 25/065

Guide needles

Definition statement

This subclass/group covers:

- Needles for the introduction of catheters, medical tubes or guide wires into the body; catheter will be delivered within the needle for introduction into the body
- Catheters with needle-shaped tips

References relevant to classification in this group

This subclass/group does not cover:

"Over-the needle" catheter assemblies	A61M 25/0606
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Body piercing needles (usually for introducing bigger sized instruments or tubes)	A61B 17/3415
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A61M 25/0662

Guide tubes

Definition statement

This subclass/group covers:

- Guide tubes are larger than guide needles
- Guide tubes are usually made out of plastics
- Guide tubes usually do not have a piercing tip

References relevant to classification in this group

This subclass/group does not cover:

"Over-the-needle" catheters	A61M 25/0606
Guide needles	A61M 25/065

Informative references

Attention is drawn to the following places, which may be of interest for search:

Guide tubes for endoscopes	A61B 1/00154
Guiding arrangements for endoscopes (this group is less relevant for the search for guide tubes; a search in A61B 1/01 should	A61B 1/01

only take place if nothing could be found!)	
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A61M 2025/0675

Introducing-sheath slitters

Informative references

Attention is drawn to the following places, which may be of interest for search:

Apparatus for cutting tubes longitudinally	B26D 3/001
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A61M 2025/0687

having means for atraumatic insertion in the body or protection of the tip of the sheath during insertion, e.g. special desisgn of dilators, needles or sheaths

Special rules of classification within this group

Documents should get a classification in [A61M 29/00](#) as well

A61M 25/0693

Flashback chambers

Definition statement

This subclass/group covers:

A flashback chamber is a small chamber connected to a needle in a catheter assembly, which will be filled with blood if a vessel is punctured for indicating the correct insertion of the assembly.

References relevant to classification in this group

This subclass/group does not cover:

Devices for taking blood samples	A61B 5/15
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices for taking blood samples provided with indicating means	A61B 5/1422
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A61M 25/09016

with mandrils

Definition statement

This subclass/group covers:

Guide wire comprising a core wire and an additional wire, which is connected to the core wire or proceed parallel to the core wire, e.g. for different mechanical properties.

A61M 25/09025

with sliding mandrils

Definition statement

This subclass/group covers:

Guide wire with a movable additional wire, not core wire, within the guide wire, e.g. for steering.

A61M 25/09041

Mechanisms for insertion of guide wires

References relevant to classification in this group

This subclass/group does not cover:

Mechanisms for the insertion of catheters	A61M 25/0113
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A61M 25/0905

extendable; e.g. mechanisms for extension

Definition statement

This subclass/group covers:

Guide wires with variable length

A61M 2025/09058

Basic structures of guide wires (not used)

Special rules of classification within this group

This group should not be used and therefore kept empty!

A61M 2025/09108

Methods for making a guide wire

Definition statement

This subclass/group covers:

- Methods and processes of making and manufacturing of guidewires
- This group covers as well apparatus for manufacturing, which are specifically used for producing guidewires

References relevant to classification in this group

This subclass/group does not cover:

Methods of making catheters	A61M 25/0009
Methods of making balloon catheters	A61M 25/1027

Informative references

Attention is drawn to the following places, which may be of interest for search:

Manufacturing of fine wires	B21C 37/047
Drawing wires	B21C 1/02
Specifics of dies	B21C 3/02
Modifying physical properties of steel by cold working	C21D 7/02
Heat treatment	C21D 1/00
Coiling wire	B21F 3/00

Twisting wire	B21F 7/00
Cutting wire	B21F 11/00
Connecting wire with wire	B21F 15/02
Metallic coating of wire	B21F 19/00

A61M 2025/09125

Device for locking a guide wire in a fixed position with respect to the catheter or the human body

Definition statement

This subclass/group covers:

Locks within and/or outside a catheter or human body

A61M 2025/09166

having radio-opaque features

Informative references

Attention is drawn to the following places, which may be of interest for search:

Radio-opaque markers on catheters	A61M 25/0108
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A61M 25/10

Balloon catheters

Definition statement

This subclass/group covers:

Mechanical and structural features of balloon catheters and balloons for catheters.

Methods for making balloon catheters.

References relevant to classification in this group

This subclass/group does not cover:

Catheters carried by the bloodstream, e.g. with parachutes; Balloon catheters specially designed for this purpose (takes precedence)	A61M 25/0125
Embolectomy	A61B 17/22032
Retractor	A61B 17/02
Stomach balloons for treatment of obesity	A61F 5/0003
Oesophageal tubes	A61J 15/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Balloons for stent delivery	A61F 2/84B
Balloons for radiation therapy	A61N 1/10B1
Cutting balloons	A61B 17/320725 ; A61B 17/32075
Surgical occlusion balloons	A61B 17/12136
Temporary occlusion for surgery	A61B 17/1204
Scraping balloon	A61B 2017/22051

A61M 25/1002

characterised by balloon shape

References relevant to classification in this group

This subclass/group does not cover:

Balloons formed between concentric tubes	A61M 25/1006
Balloons anchored to a disk or plate	A61M 25/1009

A61M 25/1011

Multiple balloon catheters

Informative references

Attention is drawn to the following places, which may be of interest for search:

Occlusion balloons	A61M 2025/1052
Surgical occlusion balloons	A61B 17/12P4

A61M 25/1018

Balloon inflating or inflation control devices

Definition statement

This subclass/group covers:

Balloon inflating or inflation control devices and balloon deflation and deflation control devices

References relevant to classification in this group

This subclass/group does not cover:

Intra-arterial balloon pumps	A61M 1/10D
Systems for priming balloon catheters	A61M 2025/1077

A61M 25/1027

Making of balloon catheters

Definition statement

This subclass/group covers:

This group covers as well apparatus for manufacturing, which are specifically used for producing balloon catheters

References relevant to classification in this group

This subclass/group does not cover:

Making of catheters	A61M 25/0009
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Method of making a guide wire	A61M 2025/09108
Making of surgical instruments	A61B 17/00
Making of surgical instruments for transferring non-mechanical forms of energy (specific features for such devices, e.g. electrodes, cryotips)	A61B 18/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Making of catheters	L29C 535/14
Devices for applying a coating	B05C
Process for applying a coating	B05D
Cutting tools	B26B

For a single-step process, or a specific step in a multi-step process:

Injection moulding	B29C 45/00
Extrusion moulding	B29C 47/00
Blow moulding	B29C 49/00
Shaping by stretching, e.g. drawing through a die	B29C 55/22
Shaping of tube ends	B29C 57/00
Lining or sheathing	B29C 63/00
Joining (please contact the gérant in this field if a search must be done here)	B29C 65/00

For a multi-step process:

Producing tubular articles	B29D 23/00
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Special rules of classification within this group

If a process leads to an interesting product, classify as well in the relevant Indexing Code group

A61M 2025/1031

Surface processing of balloon members, e.g. coating or deposition; Mounting additional parts onto the balloon member's surface

Informative references

Attention is drawn to the following places, which may be of interest for search:

Devices for applying a coating	B05C
Process for applying a coating	B05D
Making of catheters	L29C 535/14
Cutting balloons	A61B 17/320725 , A61B 17/32075

A61M 25/1034

Joining of shaft and balloon

Informative references

Attention is drawn to the following places, which may be of interest for search:

Making of catheters	L29C 535/14
Joining	B29C 65/00

A61M 25/1036

Making parts for balloon catheter systems, e.g. shafts or distal ends

Definition statement

This subclass/group covers:

Methods for making parts of balloon catheters, except balloons.

This group covers as well apparatus for manufacturing, which are specifically used for producing parts of balloon catheters, except of balloons

References relevant to classification in this group

This subclass/group does not cover:

Production methods of balloon member	A61M 25/1029
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A61M 25/104

used for angioplasty

Definition statement

This subclass/group covers:

Balloon catheters, which are used for angioplasty (PTA, PTCA)

References relevant to classification in this group

This subclass/group does not cover:

Expandable dilators (e.g. balloons, struts) not used for angioplasty	A61M 29/02
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Special rules of classification within this group

Classify balloon dilators for angioplasty as well in IPC [A61M 29/02](#)

A61M 2025/1043

with special features or adapted for special applications (not used)

Special rules of classification within this group

This group should not be used and therefore kept empty!

A61M 2025/1045

for treating bifurcations, e.g. balloons in y-configuration, separate balloons or special features of the catheter for treating bifurcations

Definition statement

This subclass/group covers:

- Balloon catheters for treating bifurcations
- Other means for treating bifurcations

A61M 2025/1052

for temporarily occluding a vessel for isolating a sector

Informative references

Attention is drawn to the following places, which may be of interest for search:

Surgical occlusion balloons	A61B 17/12136
Temporary occlusion for surgery	A61B 17/1204

A61M 2025/1054

having detachable or disposable balloons

Informative references

Attention is drawn to the following places, which may be of interest for search:

Stomach balloons for treatment of obesity	A61F 5/0003
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A61M 2025/1079

having radio-opaque markers in the region of the balloon

Informative references

Attention is drawn to the following places, which may be of interest for search:

Radio-opaque markers on catheters	A61M 25/0108
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Radio-opaque markers on guide wires	A61M 2025/09166
Radio-opaque markers	A61B 19/00R

A61M 2025/1081

having sheaths or the like for covering the balloon but not forming a permanent part of the balloon, e.g. retractable, dissolvable or tearable sheaths

References relevant to classification in this group

This subclass/group does not cover:

Sheaths for balloon length adjustment	A61M 2025/1068
Stent covering sheaths	K61F 2/84B2

A61M 2025/1086

having a special balloon surface topography, e.g. pores, protuberances, spikes or grooves

Informative references

Attention is drawn to the following places, which may be of interest for search:

Cutting balloons	A61B 17/320725 , A61B 17/32075
Scraping balloon	A61B 2017/22051

A61M 2025/109

having balloons for removing solid matters, e.g. by grasping or scraping plaque, thrombus or other matters that obstruct the flow

Informative references

Attention is drawn to the following places, which may be of interest for search:

Cutting balloons	A61B 17/320725 , A61B 17/32075
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Scraping balloon	A61B 2017/22051
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A61M 27/00

Drainage appliances for wounds or the like [N: i.e. wound drains, implanted drains] (implements for holding wounds open A61B17/02; [N: middle ear drainage A61F11/002; other drainage devices A61M1/00])

Definition statement

This subclass/group covers:

- Wound drainage tubes.
- Systems for temporarily by-passing an vessel area with at least a part of circuit outside the body, e.g. for performing a surgical treatment in the by-passed area.

References relevant to classification in this group

This subclass/group does not cover:

Implements for holding wounds open	A61B 17/02
Middle ear drainage	A61F 11/002
Wound drainage systems (with negative pressure or suction)	A61M 1/0088

Informative references

Attention is drawn to the following places, which may be of interest for search:

Valve means for lumen inflow	A61M 25/00T20A1I
Multi-lumen catheters	A61M 25/0026

A61M 27/002

[N: Implant devices for drainage of body fluids from one part of the body to another (intraocular A61F9/00V; middle ear

A61F11/002)]]]

Definition statement

This subclass/group covers:

Implantable drainage tubes, e.g. shunts

References relevant to classification in this group

This subclass/group does not cover:

Intraocular drainage	A61F 9/00781
Anastomosis	A61B 17/11

A61M 27/006

Cerebrospinal drainage; Accessories therefor, e.g. valves

Informative references

Attention is drawn to the following places, which may be of interest for search:

Subcutaneous access sites for injecting or removing fluids	A61M 39/0208
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A61M 27/008

pre-shaped, for use in the urethral or ureteral tract

Definition statement

This subclass/group covers:

Urethral or ureteral pre-shaped stents for draining

A61M 29/00

Dilators with or without means for introducing media, e.g. remedies (instruments for performing visual medical inspections of cavities or tubes of the body A61B1/00

Definition statement

This subclass/group covers:

Dilators, which do not change their shapes

References relevant to classification in this group

This subclass/group does not cover:

Expandable dilators, e.g. balloons not used for angioplasty, struts	A61M 29/02
Balloon dilators used for angioplasty	A61M 25/104

A61M 29/02

Dilators made of swellable material

Definition statement

This subclass/group covers:

Expandable dilators, e.g. balloons not used for angioplasty, struts.

A61M 31/00

Devices for introducing or retaining media, e.g. remedies, in cavities of the body (A61M25/00 takes precedence; [N: introducing or retaining ophthalmic products into the ocular cavities A61F9/0008])

Definition statement

This subclass/group covers:

Introducing or retaining medias in natural cavities, e.g. nose, anus, ear, vagina.

References relevant to classification in this group

This subclass/group does not cover:

Introducing or retaining medias in vessels	A61M 25/00
Introducing or retaining ophthalmic products into the ocular cavities	A61F 9/0008
Feeding devices	A61J 15/00A
Injector for tampons	A61F 13/20
Tablets, pills	A61J 3/00

A61M 31/002

Devices for releasing a drug at a continuous and controlled rate for a prolonged period of time

Definition statement

This subclass/group covers:

- Tampons with drug delivery.
- Electronic pills with drug delivery.
- Other devices for releasing a drug in a natural cavity.

References relevant to classification in this group

This subclass/group does not cover:

Artificial gland structures or devices	A61F 2/022
Intra-uterine contraceptive devices	A61F 6/14
Suppositories or bougies for intra-vaginal or intra-uterine application	A61K 9/02
Medicinal preparations for sustained or differential drug release	A61K 9/20 , A61K 9/50

Informative references

Attention is drawn to the following places, which may be of interest for search:

Electronic pills	A61B 5/073
Endoscopes using self-propulsion, e.g. capsule endoscopes	A61B 1/00156

A61M 35/00

Devices for applying, [N: e.g. spreading], media, e.g.

remedies, on the human body (devices for handling toilet or cosmetic substances A45D; absorbent pads, e.g. swabs, A61F13/15); [N: Introducing media, e.g. remedies, into the body by diffusion through the skin (using salt baths A61H33/04)]]

Definition statement

This subclass/group covers:

- Devices only for applying drugs onto the body.
- Booths for spraying tanning lotions onto the body.

References relevant to classification in this group

This subclass/group does not cover:

Devices for handling toilet or cosmetic substances	A45D
Baths	A61H 35/00
Absorbent pads, e.g. swabs	A61F 13/15
Salt baths	A61H 33/04

Informative references

Attention is drawn to the following places, which may be of interest for search:

Spraying apparatus	B05B
Coin operated apparatus for spraying fluids	G07F 13/08
Transdermal patches with drugs	A61K 9/7023
Apparatus for tanning the skin	A61N 5/0614

A61M 35/003

Hand-held applicator instruments having media dispensing or spreading means

Definition statement

This subclass/group covers:

Handheld devices only for applying drugs onto the body.

References relevant to classification in this group

This subclass/group does not cover:

Apparatus for iontophoresis	A61N 1/30
Hand tools for applying fluent material to surfaces, in general	B05C 17/00
Container closures with pads or like contents-applying means, in general	B65D 47/42
Hand-held massage devices with liquid delivery	A61H 7/00D2B , K61H 201/04

A61M 35/006

Absorbent pads, e.g. swabs, containing a liquid, e.g. in a rupturable reservoir

References relevant to classification in this group

This subclass/group does not cover:

Absorbent pads, e.g. swabs, for medical use, in general	A61F 13/00 , A61F 13/38
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A61M 37/00

Other apparatus for introducing media into the body (for reproduction or fertilisation A61B17/425; apparatus for iontophoresis or cataphoresis A61N1/30); Percutany, i.e. introducing medicines into the body by diffusion through the skin (salt baths A61H33/04))

Definition statement

This subclass/group covers:

Devices for introducing substances (mainly drugs) into the body through artificial openings, e.g. thanks to puncturing with needles, thanks to

application of ultrasound

References relevant to classification in this group

This subclass/group does not cover:

Reproduction or fertilisation	A61B 17/425
Iontophoresis or cataphoresis	A61N 1/30
Salt baths	A61H 33/04
Syringes	A61M 5/178
Implantable pumps	A61M 5/14276

Informative references

Attention is drawn to the following places, which may be of interest for search:

Vaccination needles	A61B 17/205
Acupuncture	A61H 39/08

A61M 2037/0007

having means for enhancing the permeation of substances through the epidermis, e.g. using suction or depression, electric or magnetic fields, sound waves or chemical agents

Informative references

Attention is drawn to the following places, which may be of interest for search:

Ultrasound, e.g. phonophoresis	A61M 37/0092
Iontophoresis or cataphoresis	A61N 1/30

A61M 37/0015

by using microneedles

Relationship between large subject matter areas

Please propose the following classes as well:

Drug coated or drug delivering microneedles with specific drugs

[A61K 9/0021](#)

A61M 2037/0053

Methods for producing microneedles

Relationship between large subject matter areas

Please propose the following classes as well (if applicable):

Shaping techniques

[B29C 67/00](#)

Manufacture or treatment of devices or systems in or on a substrate

[B81C 1/00](#)

A61M 37/0069

Devices for implanting pellets, e.g. markers or solid medicaments

Definition statement

This subclass/group covers:

Solid implants, e.g. solid medicaments, marker, etc., and devices for implanting solid implants into the body invasively

References relevant to classification in this group

This subclass/group does not cover:

Radioactive implants and devices which are used only for implantation of radioactive implants (special sizes, shapes, radiation protection, etc.)	A61N 5/1001
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Solid drug implants	A61K 9/0024
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Cannula for implanting or removing devices	A61B 17/3468
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A61M 37/0076

Tattooing apparatus

Definition statement

This subclass/group covers:

- Devices for applying permanent tattoos.
- Devices for applying temporary tattoos.
- Devices for applying temporary tattoos without using needles, e.g. adhesive tattoos.

References relevant to classification in this group

This subclass/group does not cover:

Apparatus for marking animals	A01K 11/00
Vaccination needles	A61B 17/205

A61M 39/00

Tubes, tube connectors, tube couplings, valves, access sites or the like, specially adapted for medical use (for respiratory devices, e.g. tracheal tubes A61M16/00; artificial heart valves A61F2/24)

Definition statement

This subclass/group covers:

Access sites (subcutaneous or transcutaneous), haemostasis valves, medical tubes and means for storage of said tubes, tube connectors, caps or plugs for tubes or connectors, valves and clamping means for medical tubes.

References relevant to classification in this subclass

This subclass/group does not cover:

Tracheal tubes (respiratory tubes)	A61M 16/04 , A61M 16/08
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Connecting needles to syringes	A61M 5/34
Connecting catheter tubes to hubs	A61M 25/0014
Respiratory valves	A61M 16/20
Vascular valves	A61F 2/24 - A61F 2/2496

Informative references

Attention is drawn to the following places, which may be of interest for search:

Locating means to allow access to septum	A61M 5/427
Peritoneal dialysis catheter	A61M 1/285
Tracheotomy devices	A61M 16/0465
Measuring pressure within body	A61B 5/03
Colostomy devices	A61F 5/445
Gastrotomy feeding tubes	A61J 15/00A
Cranial plugs	A61B 19/00B8
Resheathing means for used needles	A61M 5/321
Fistulas	A61M 1/3655
Multi-channel connectors in general	F16L 37/56
Rotating or swivel joints in general	F16L 27/00
Quick-acting type connectors in general	F16L 37/00
Swivel nut connector (screw threaded joint) in general	F16L 15/00
Union screw connector (sealing surfaces pressed together by means of a member) in general	F16L 19/00

Connecting hose to rigid members in general	F16L 33/00
Method or apparatus for disinfecting or sterilizing	A61L 2/00
Regulating valves in infusion systems	A61M 5/16881
Multiway valves in general	F16K 11/08
Starling valves in general	F16K 7/07
Tube strippers	A61M 1/0078
Screw clamps in general	F16K 7/061
Lever clamps in general	F16K 7/063
Camp clamps in general	F16K 7/065
Wedge clamps in general	F16K 7/066
Tube cut-off devices by bending or twisting the tube in general	F16K 7/068

Special rules of classification within this subclass

The classification of "additional information" in the field is mandatory, but only if the additional information has some importance.

For example, the main invention is an access site ([A61M 39/02](#)), but a valve ([A61M 39/22](#)) is present in the device. If the valve is just a common check valve with no specific details, then it is not worth giving a class in the field of valves. On the contrary, if the check valve is well described and presents some interesting features, then the document should also be classified in the field of valves.

Further details of subgroups

[A61M 39/02](#)

This subgroup contains the access sites. They are divided in two main categories: the subcutaneous access sites ([A61M 39/0208](#)) that are implanted under the skin and are therefore invisible to the user; and the transcutaneous access sites ([A61M 39/0247](#)) that actually go through the skin and that therefore have a part exposed to the outside. Historically the transcutaneous

access sites were in an other field, they have been recently regrouped with the subcutaneous access sites. [A61M 39/0208](#) still contains documents that would now belong in [A61M 39/0247](#) but that were put in [A61M 39/0208](#) at a time where [A61M 39/0247](#) did not yet exist.

[A61M 39/06](#)

Haemostatis valves.

[A61M 39/10](#)

This subgroup regroupes all kinds of medical connectors (except respiratory connectors that can be found in [A61M 16/08](#)). Some of the subdivisions of this subgroup mirror the way in which the general connectors are classified in [F16L](#). Other subdivisions are more specific to the medical connectors.

[A61M 39/24](#)

This subgroup contains medical check valves that are mostly classified by the way in which the check valve works, i.e. what kind of element (hinged member, flexible disc, ball, stem etc.) is used inside the valve to get the desired "non-return effect". Again here, the subdivisions in this subgroup mirror the subdivisions of the group [F16K 15/00](#) that contains general check valves.

[A61M 39/26](#)

This subgroup contains valve closing automatically on disconnecting the line and opening on reconnection. Part of the subdivisions deals with the way in which the fluid space inside the valve is affected by disconnection. It can be difficult to find that information in the document to be classified, therefore extra-care is required when classifying in this subgroup.

[A61M 39/28](#)

This subgroup contains medical clamps for squeezing flexible tubes. Again here, the subdivisions in this subgroup mirror the subdivisions of the group [F16K 7/00](#) that contains general clamps.