



SHANGHAI EVEN MEDICAL INSTRUMENTS CO.,LTD

Sutures Manual 2021

GROW YOUR COMPANY
WITH US



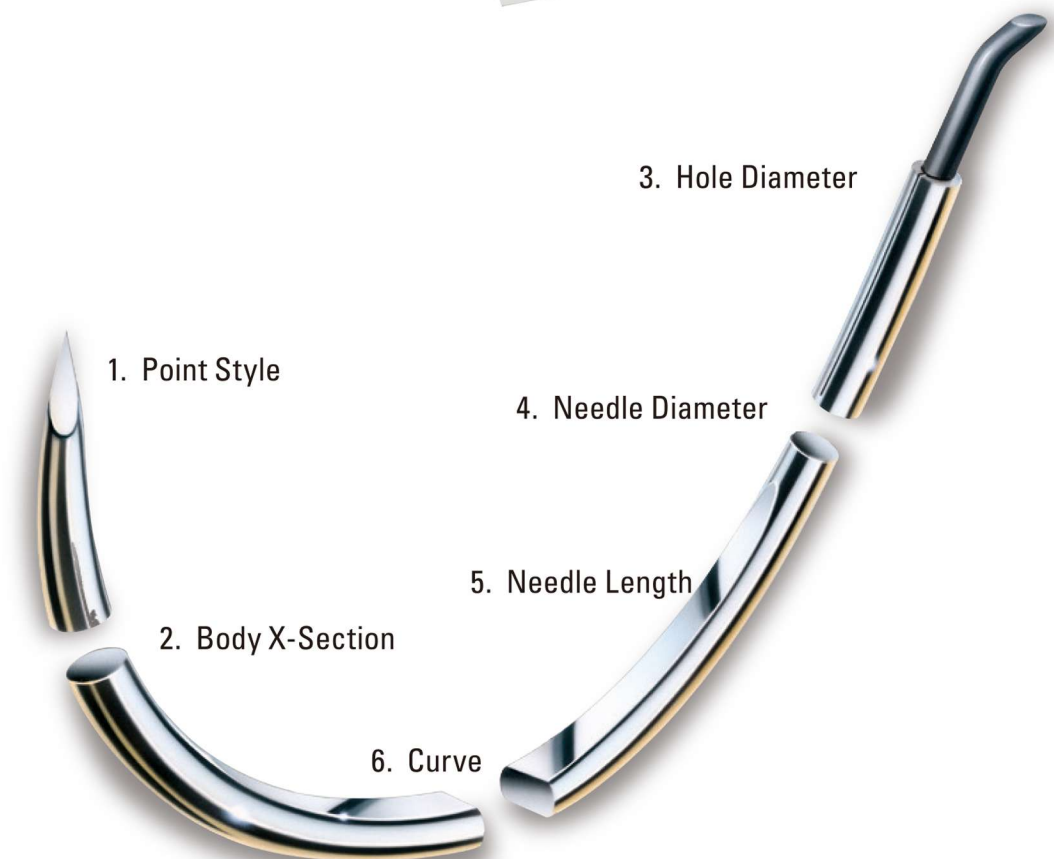
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Technical specifications

NEEDLE TYPE

Needle Shape	Point Type	Symbol
	Round Bodied	
	Curved Cutting	
	Reverse Cutting	
	Taper Cutting	
	Blunt Point	
	Precision Point-Reverse Cutting	
	Micropoint Curved Spatula	

NEEDLE LENGTH

1/2 Circle	3/8 Circle	1/4 Circle	5/8 Circle	Straight

SUTURE MATERIALS

Polyglycolic Acid	Rapid Polyglactin 910	Polyglycolic 910	Poliglecaprone 25
Polydioxanone	Chromic Catgut	Plain Catgut	Polypropylene
Polyester (braided)	Silk (braided)	Nylon Monofilament	Surgical Steel

Code Guide

Thread Type	Thread Length	Thread Diameter	Needle Length (mm)	Needle curvature	Cross section
PGA	1	11/0	3,7	A	0
RPGA	2	10/0	3,9	B	1
PGLA	3	9/0	4,7	C	2
PGCL	4	8/0	5,1	D	3
PDS	5	7/0	6,2	E	4
CC	6	6/0	6,5	F	5
CP	7	5/0	7,1	G	6
PM	8	4/0	8,0	H	7
PB	9	3/0	8,5	I	8
SK	10	2/0	10,10	Circle	9
NL	11	0	11,11	Circle (Double)	10
SW	12	00	12,12	Circle (Double)	11
	13	01	13,13	Circle (Double)	12
	14	02	15,15	Circle (Double)	
		03	16,16	Circle (Double)	
		04	17,17	Circle (Double)	
		05	19,19	Circle (Double)	
			19	LOOP Round	

14	05	19	I	12
SW				

SW140519112
Product Code (Example)

Chromic Catgut

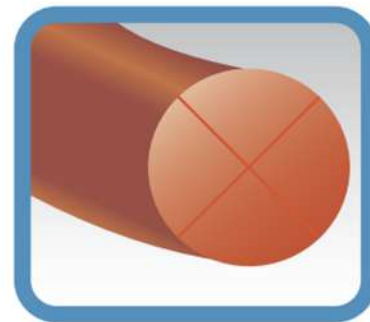
Chromic catgut suture is an absorbable sterile surgical suture composed of purified connective tissue (mostly collagen) derived from either the serosal layer of beef (bovine) or the submucosal fibrous layer of sheep (ovine) intestines.

The Chromic Catgut is treated with glycerin and chromic salt solution and to delay the absorption.

The color of the plain catgut surgical suture is green or tan, and the size is USP 6/0 -4. Gamma-ray sterilization. It is valid for five years.

Characteristics

- High tensile strength
- Excellent handling properties
- Minimal tissue reaction
- Uniform absorption



Chromic Catgut

Indications

Chromic catgut is indicated for use in general, soft tissue approximation and/or ligation, including use in ophthalmic procedures, gastrointestinal, dental and gynecological but not for use in cardiovascular and neurological procedures.

Plain Catgut suture should not be used where longer suture support is necessary.

Pay attention to the sensitivities or allergies to collagen or chromium.

Properties

Catgut suture have a high initial tensile strength, which is retained for up to 30 days.

The process of Chromic catgut and Plain catgut 's mass absorption is completed in 90 days.

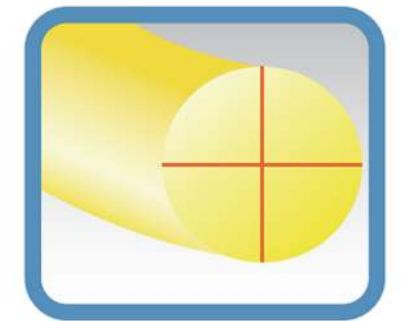
Plain Catgut

Plain Catgut suture is a sterile absorbable monofilament suture. Plain catgut is made of connective tissue (mainly collagen) formed by the serous layer of cattle or submucous fiber layer of sheep intestine. The Plain catgut was packed with a solution containing isopropanol, water, sodium benzoate, and diethylamino ethanol.

The color of the plain catgut surgical suture is straw, and the size is USP 6/0 to 4. Gamma-ray sterilization. It is valid for five years.

Characteristics

- High tensile strength
- Excellent handling properties
- Minimal tissue reaction
- Uniform absorption



Plain Catgut

Indications

Plain catgut is indicated for use in general, soft tissue approximation and/or ligation, including use in ophthalmic procedures, gastrointestinal, dental and gynecological but not for use in cardiovascular and neurological procedures.

Plain Catgut suture should not be used where longer suture support is necessary.

Pay attention to the sensitivities or allergies to collagen or chromium.

Properties

Catgut suture have a high initial tensile strength, which is retained for up to 30 days.

The process of Chromic catgut and Plain catgut 's mass absorption is completed in 90 days.

Polyglycolic Acid (PGA)

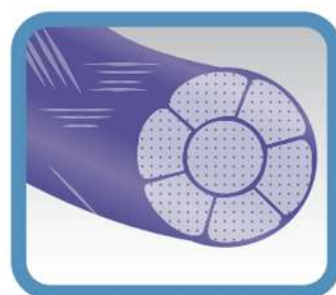
Polyglycolic Acid (PGA) is a sterile absorbable synthetic, multifilament suture composed of glycolic acid.

The yarns are braided and coated with a blend of polycaprolactone, copolymer of caprolactone and glycolide and Calcium Stearate.

The PGA Suture is available in violet and undyed from sizes: USP 6/0-USP 2.

Characteristics

- High initial tensile strength
- Excellent knotting ability
- Outstanding holding power through the critical wound period
- Reliable absorbability



Polyglycolic Acid

Indications

PGA Sutures are indicated for use in general surgery.

It is suitable for the coating of soft tissue and for ligation and also for use in ophthalmic surgery, gastrointestinal surgery, pediatric surgery, gynaecology, obstetrics, urology, plastic surgery, but not for use in cardiovascular tissue and neural tissue.

Being absorbable not to use when long wound support is required.

Properties

PGA Sutures have a high initial tensile strength, which is retained for up to 28 days, 70% of the tensile strength by the 2nd week and 50% by the 3rd week.

After which absorption by hydrolysis begins, where the polymer degrades to glycolic acid, which is absorbed by the body between 60-90 days.

Polyglactin 910 (PGLA)

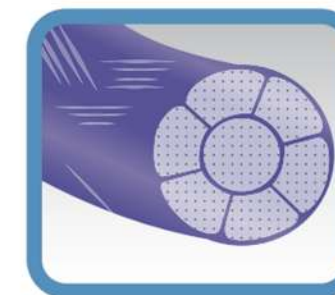
Polyglactin (PGLA) is a sterile absorbable synthetic, multifilament suture composed of polyglactin 910 glycoside and lactide derived from glycolic and lactic acids, coated with a blend of caprolactone/glycolide copolymer and calcium stearoyl lactylate.

PGLA sutures are available violet and undyed color from sizes: USP 6/0-USP 2.

PGLA sutures coated with polycaprolactone and calcium stearate.

Characteristics

- High tensile strength
- Excellent handling and knotting characteristics
 - Smooth tissue passage
 - Easy knotting and tie down
 - Excellent knot security
- Reliable absorbability



Polyglactin 910

Indications

PGLA absorbable sutures are indicated for use in general surgery. It is suitable for the coating of soft tissue and for ligation, including use in ophthalmic procedures, but not for use in cardiovascular tissue and neural tissue. Applicable also in gynecology, pediatric surgery, gastrointestinal surgery, and also in odontology. The PGLA sutures are absorbable and should not be used where long suture support is necessary.

Properties

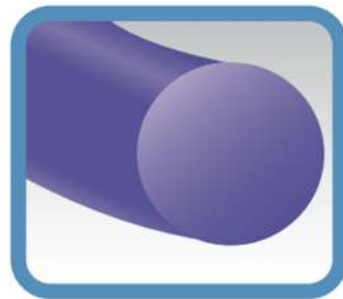
PGLA absorbable sutures retain 70% of their tensile strength by the first week and 50% by the third week. After which absorption by hydrolysis begins, where the polymer degrades to glycolic acid, which is absorbed totally by the body between 56-70 days.

Polyglecaprone 25 (PGCL)

Polyglecaprone 25 (PGCL) is a sterile absorbable synthetic monofilament suture composed of poly glycolide-co-caprolactone. PGCL suture is available in violet and undyed from sizes: USP6/0-2.

Characteristics

- High initial tensile strength
- Lower Incidence of Infection and Trauma due to Smooth Surface
- Smooth tissue passage
- Excellent handling properties



Polyglecaprone 25

Indications

PGCL sutures are indicated for use in superficial soft tissue and/or ligation including general surgery, gastrointestinal surgery, gynaecology, as well as urology.

It is not for use in cardiovascular, neurology and ophthalmic surgery.

Properties

PGCL sutures retain 60% of the tensile strength by the first week, and 30% by the second week. After the absorption by hydrolysis begins, the copolymer degrades to glycolic acid, which is absorbed completely in 90-110 days.

Polydioxanone (PDO)

Polydioxanone (PDO) is a sterile absorbable synthetic monofilament suture composed of polyp-dioxanone and coated with poly caprolactone and calcium stearate. PDO suture is available in violet and undyed from sizes: USP6/0-2. PDO sutures are found to be non-pyrogenic.

Characteristics

- Compliance with the requirements of EP
- Lower Incidence of Infection and Trauma due to Smooth Surface
- Smooth tissue passage
- Predictable loss and Higher strength com-



Polydioxanone

Indications

PDO sutures are generally preferred where the combination of an absorbable suture and longer wound support is desired. PDO is generally used in general surgery, including pediatric surgery, ophthalmic surgery, gastrointestinal surgery, gynecology, plastic surgery, urology, and orthopedics.

It is not used for adult cardiovascular tissue, neurology and prosthetic devices.

Properties

The results of in-vitro studies of PDO suture indicate that 70% of its original strength remains after 4 weeks and 50% of its original strength remains after 6 weeks.

PDO suture complete absorption takes 6-7 months.

Nylon (Monofilament)

Nylon suture is a monofilament surgical suture synthesized by polyamide 6 and/or polyamide 6.6, which is a non-absorbable suture. Nylon suture meets all the requirements established by the United States Pharmacopeia for Non-absorbable surgical sutures.

Nylon suture has high strength, good compatibility, and low tissue reaction. Because it is a single strand of sutures, so it is not easy to be bacteria, causing infection. No capillarity occurs at the same time.

The color of nylon suture is blue or black. Available from size: USP 11/0-3. Gamma-ray sterilization. It is valid for five years.

Characteristics

- High tensile strength
- Excellent and permanent tissue support
- Smooth tissue passage
- Easy and secure knotting



Nylon

Indications

Nylon Sutures are indicated for use in general surgery. It is suitable for use in soft tissue and for ligation, including use in ophthalmic procedures, and neurological tissues (peripheral nerves) as well cardiovascular and plastic, and reconstructive surgery. Nylon Sutures should not be used when extensive and permanent retention of tensile strength is required, such as cardiac surgery (e.g. artificial heart valves) neurosurgery (central neural system).

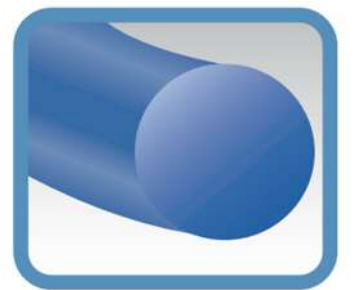
Polypropylene (Monofilament)

Polypropylene suture is a sterile non-absorbable, monofilament, synthetic surgical suture composed of an isotactic crystalline stereoisomer of polypropylene a synthetic linear polyolefin, and polyethylene.

The color of polypropylene suture is blue. Available from size: USP 6/0-3. Gamma-ray sterilization. It is valid for five years.

Characteristics

- High tensile strength
- Good handling properties
- Minimal tissue reaction
- Easy and secure knotting



Polypropylene

Indications

Polypropylene suture is indicated for use in general soft tissue closing and/or ligatures, including use in cardiovascular surgery, neurosurgery, ophthalmic surgery, microsurgery, plastic surgery, and gastro intestinal surgery.

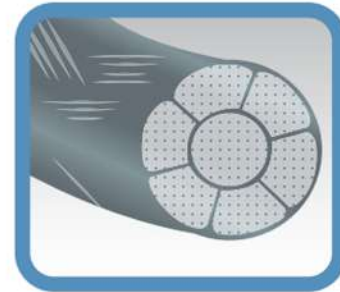
Silk (Braided)

Silk suture is a sterile non-absorbable, braided suture composed of natural silk or organic protein called fibroin. The yarns are processed in order to remove the naturally enclosed sericin gum and waxes and then spun, braided, and coated in silicone to provide a smooth surface and greater tensile strength.

The color of silk suture is black or ivory. Available from size: USP 6/0-4. Gamma-ray sterilization. It is valid for five years.

Characteristics

- Excellent handling properties
- High tensile strength
- Highly smooth and flexible



Silk

Indications

Non-absorbable silk sutures are indicated for use in general surgery. It is suitable for use in soft tissue and for ligation, general surgery including use in ophthalmic procedures, cardiovascular and neurological tissues.

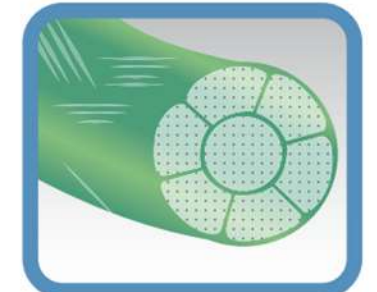
Polyester (Braided)

Polyester suture is a sterile non-absorbable, braided, synthetic suture composed of Polyethylene terephthalate (polyester). Polyester Sutures are dyed green/blue and coated with Silicon which grants extraordinary smoothness, softness, and non-thrombogenic features to the suture.

The color of polyester suture is green or blue. Available from size: USP 6/0-4. Gamma-ray sterilization. It is valid for five years.

Characteristics

- High tensile strength
- Excellent handling properties
- Minimal tissue reaction
- Easy and secure knotting



Polyester

Indications

Polyester suture is indicated for use in general surgery. It is suitable for use in soft tissues and for ligation, including cardiovascular surgery, general surgery, ophthalmic surgery, orthopedic surgery, obstetrics, and Gastrointestinal surgery.