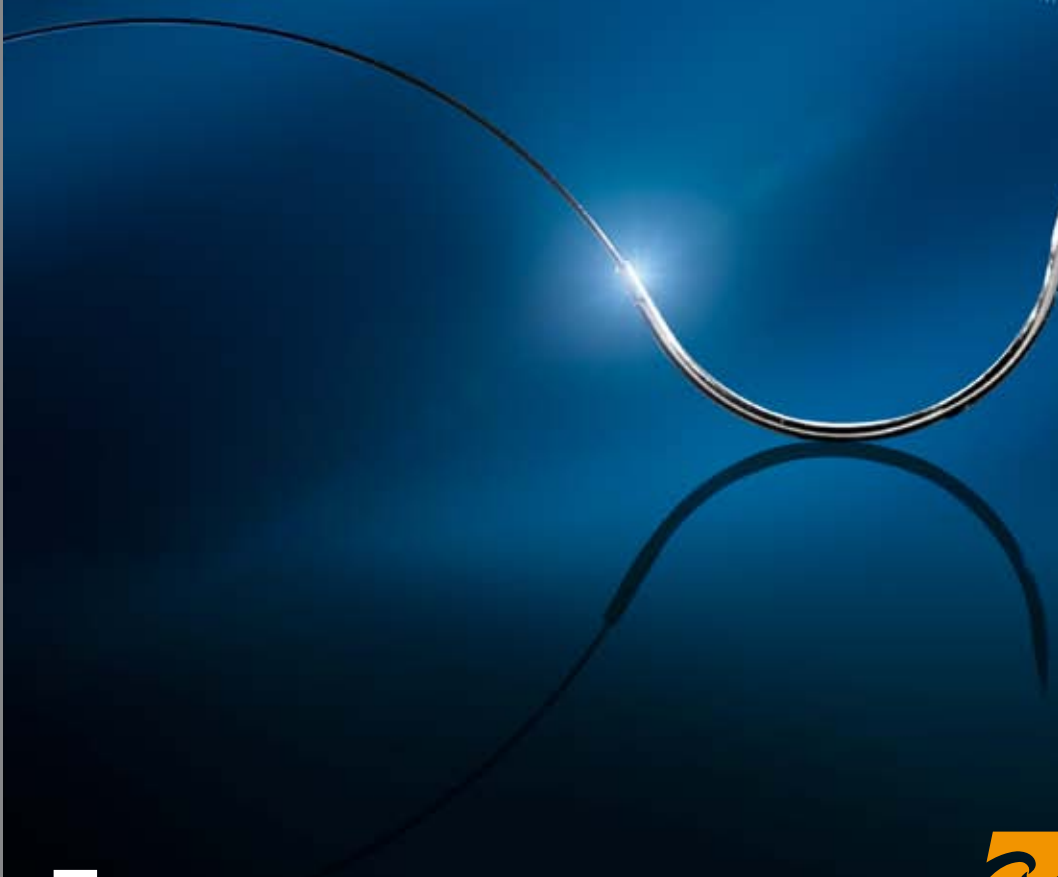




ADVANCED TISSUE-MANAGEMENT

The easy way to aesthetics.

RESORBA® ORAL suture material



RESORBA® ORAL suture material

Surgical wound care

Undisturbed healing is an essential prerequisite for achieving functionally and aesthetically good long-term results after oral surgical procedures.

Modern suture materials permit atraumatic and precise adaptation of soft-tissue wounds. The tissue reaction is influenced by the suture technique, the thread material, the thread diameter, and the type of needle point used. Fluorescence angiographic studies of wound vascularisation have shown tissue perfusion to be significantly better after the correct use of fine suture materials.

RESOTEX® ORAL / GLYCOLON® ORAL

- ▶ outstanding ease of handling
- ▶ very soft with high tissue compatibility
- ▶ black needles and coloured threads, therefore no distracting light reflection and excellent contrast in bloody environment



WT4 ▼



DD3 ●



GP ▼

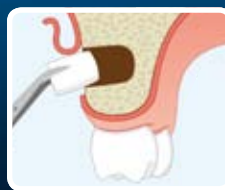


RESOTEX® ORAL / GLYCOLON® ORAL by RESORBA® is a special suture programme that has been developed for those oral surgical procedures that are performed most commonly in everyday practice. A small, manageable range of six needle–thread combinations covers a broad range of indications.

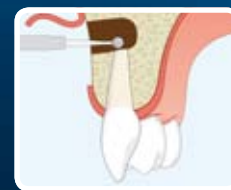
Indications:



Extraction
(standard + risk)



Cystectomy



Apicectomy



Sinus floor elevation



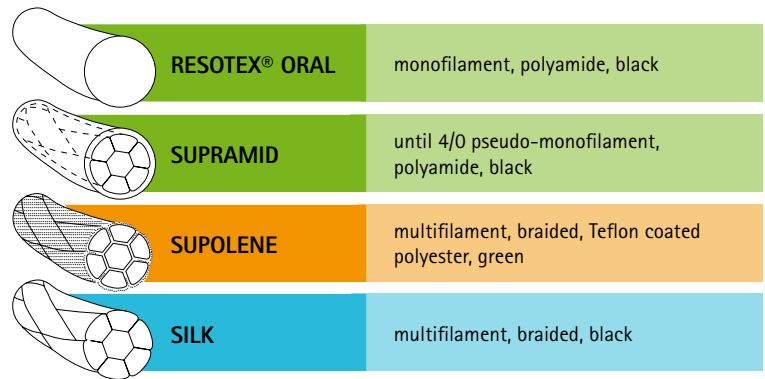
Augmentation



for each
indication, an
optimal suture
material

Non-absorbable material

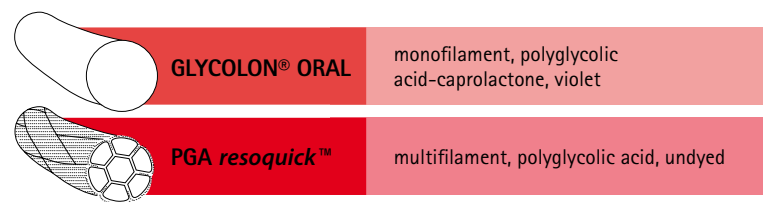
- ▶ long-term durability with simultaneous high biocompatibility
- ▶ optimal tissue compatibility in the body due to the careful selection of materials and refining process
- ▶ easy removal



Non-absorbable suture material remains virtually unchanged in body tissues. Once the scar tissue of the wound edges has become sufficiently strong to hold the wound together, the doctor removes the suture material simply by pulling it out.

Absorbable material

- ▶ for tissue adaptations where the need for mechanical support is time-restricted
- ▶ problem-free disintegration and elimination
- ▶ optimum biocompatibility due to the chemical properties and refinements



Absorbable suture materials hold the wound edges in place during the healing phase. During this time their tensile and breaking strength gradually diminishes. Absorbable suture materials are broken down either by endogenous proteolytic enzymes or by hydrolysis (in the case of PGA *resoquick*™ and GLYCOLON®).

Needles for oral surgery

RESORBA® needles are designed for specific indications, surgical techniques, and tissue conditions.

- ▶ atraumatic due to optimal transition between needle and thread
- ▶ special surface treatment and precision grinding ensures minimal resistance to penetration and smooth passage through the tissue
- ▶ needles of PREMIUM quality, nonreflective (ORAL programme)

OVERVIEW

Sutures

Non-absorbable sutures

RESOTEX® ORAL

RESOTEX® ORAL is a monofilament, non-absorbable surgical suture material for oral surgery made from a copolymer of polyamide 6 and polyamide 6/6.

The monofilament structure without an additional coating prevents the wick effect and tissue trauma during passage through tissue. The material is colored with a physiologically safe dye.

SUPOLENE

SUPOLENE is manufactured by polycondensation of ethylene glycol and terephthalic acid. The fibres are produced by the dry spinning method. The suture is then precision-braided, dyed, tempered and the surface specially refined by coating the suture.

This surface treatment reduces to a minimum capillarity and the sawing action during passage through the tissue and the knot rundown. The material is colored with a physiologically safe dye.

SUPRAMID

SUPRAMID is a monofilament, non-absorbable surgical suture material for oral surgery made from a copolymer of polyamide 6 and polyamide 6/6. In larger diameters, it is supplied as pseudo-monofilament, non-absorbable, surgical suture material made from polyamide 6/6, a polymer of hexamethylenediamine and adipic acid with a coating of polyamide 6, a ϵ -caprolactam polymer. The material is colored with a physiologically safe dye.

SILK

The raw material in the production of this suture is the cocoon of the silkworm. These very fine silk threads are degummed (sericin, a viscous protein, is boiled off), spun and precision-braided.

The silk thread is impregnated by treating its surface. This process results in silk made without any undesirable wick effect, i.e. a non-capillary, hydrophobic thread with a smooth surface. Black silk is colored with physiologically safe dye.

Absorbable sutures

GLYCOLON® ORAL

The two material components polyglycolic acid and ϵ -caprolactone are copolymerized in a certain ratio to make GLYCOLON® ORAL.

Metabolization of the polymer suture within the tissue occurs by the uptake of water, thus reversing the synthesis. GLYCOLON® ORAL loses half of its tensile strength after about 9 days after implantation. Complete absorption by hydrolysis is completed after about 6 weeks. Tissue reaction is minimal because of the completely safe intermediary products and the monofilament structure of thread.

GLYCOLON® ORAL with its smooth surface provides excellent handling properties and very good passage through tissue. Tissue trauma is minimal and there is no undesirable wick effect due to the monofilament structure of GLYCOLON® ORAL. GLYCOLON® ORAL is supplied undyed for skin sutures or violet (dyed with the physiologically safe dye D+C No. 2).

PGA *resoquick*™

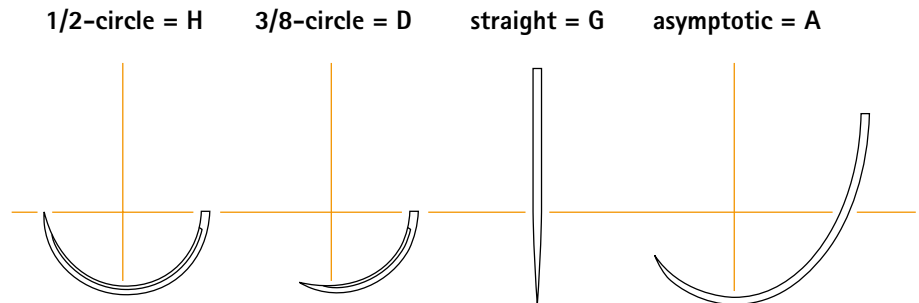
PGA *resoquick*™ is a polymer of glycolic acid. The linear, high-molecular glycolic acid is synthesised in the presence of a catalyser to a cyclic ester via an intermediary product, glycolide.

Metabolisation of the PGA suture within the tissue occurs by the uptake of water, thus reversing the synthesis. The monomeric glycolic acid is split enzymatically into CO_2 and H_2O by the normal metabolism. Suture material containing 10% lactide as copolymerisate differs only slightly in its physical and physiological properties from pure PGA sutures. The fine, precision-braided filaments guarantee a very high tensile strength as well as great suppleness. The special resolactone coating thinly covers the fibre bundles for specifically reducing surface friction. Absorbable sutures approximate the tissue during the healing phase and progressively lose their tensile strength and breaking load.

After only seven days PGA *resoquick*™ has already lost 50% of its original breaking load. After 14 – 21 days the breaking load is lost completely.

Needle shapes

needle	indication
1/2-circle	universal and posterior
3/8-circle	anterior
straight	interdental
asymptotic	interdental



Needle body – profile and point



Round-bodied cutting needle

☉ = RT

1/2-, 3/8-circle, asymptotic or straight
= HRT, DRT, GRT, ART

- ▶ special needle ORAL = WT
- ▶ for firm tissue, sclerotic vessels, and prostheses
- ▶ needle point with three cutting edges, thus producing a narrow puncture canal which easily penetrates tissue



Round-bodied needle

● = R

5/8-, 1/2-, 3/8-circle or straight
= FR, HR, DR, GR

- ▶ special needle ORAL = DD
- ▶ or soft (subcutaneous) tissue, e.g. muscle, fascia, mucosa
- ▶ the middle of the needle is flat for a better hold with the needle-holder
- ▶ conically tapered fine needle tips
- ▶ easy tissue penetration



Reverse cutting needle

▼▽ = S

1/2-, 3/8-circle, 1/2-curved or straight
= HS, DS, KS, GS

- ▶ special needle ORAL = GP
- ▶ for firm tissue, e.g. skin
- ▶ triangular needle cross-section
- ▶ some needles available with M-PREMIUM-cut

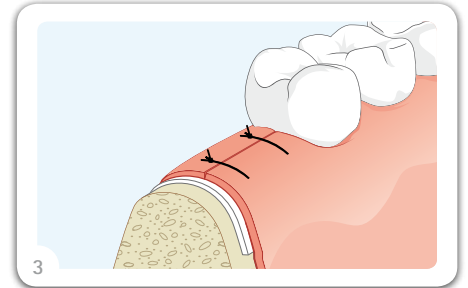
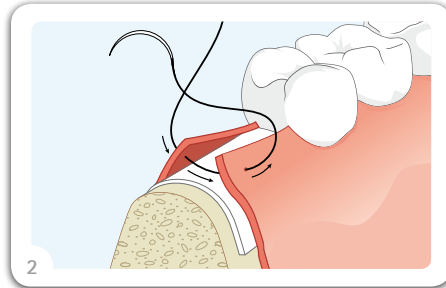
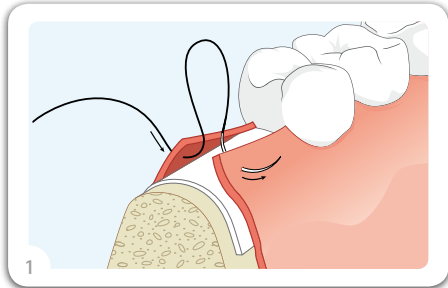
RESORBA's atraumatic eyeless needles are manufactured from special stainless steel of optimal flexibility and strength. Special surface treatment and precision grinding of needle points and cutting edges ensure minimal resistance to penetration and easy passage of the needle through the tissue. Testing of the needle holding force is performed in accordance with the harmonised norms for surgical suture material derived from the European Pharmacopoeia.

The special black coating of the needles of the RESORBA® ORAL range reduces reflections in the surgical field and ensures optimal puncture and penetration properties.

OVERVIEW

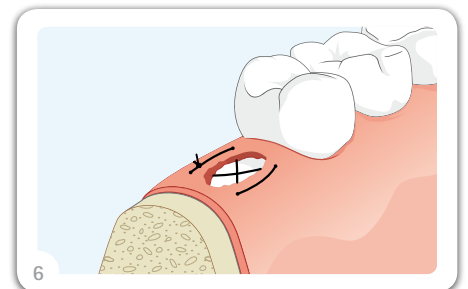
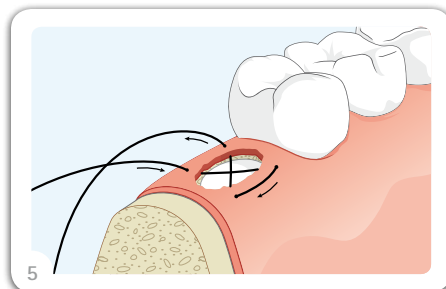
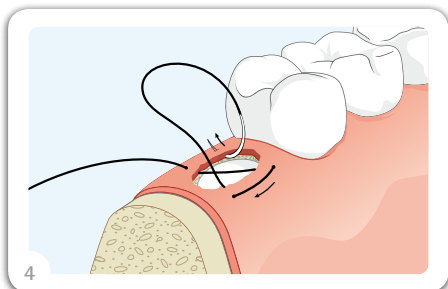
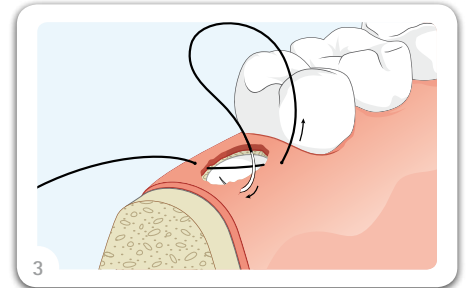
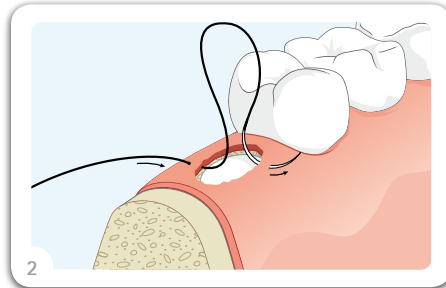
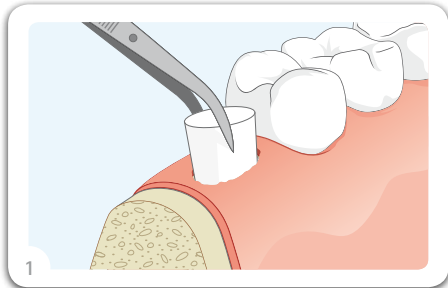
Suture techniques

Interrupted suture



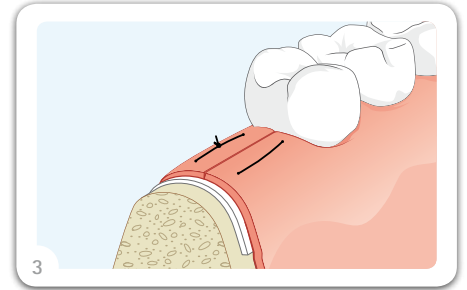
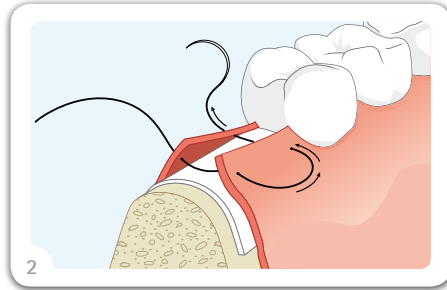
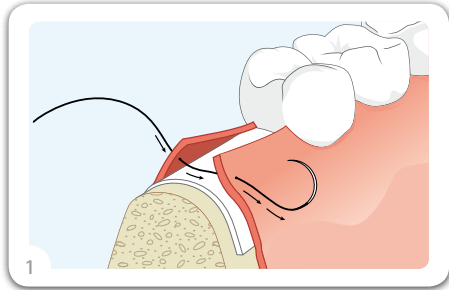
Simple suture technique suitable even for high-tension tissue adaptation.

Criss-cross suture



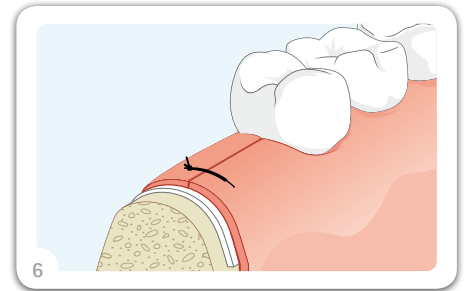
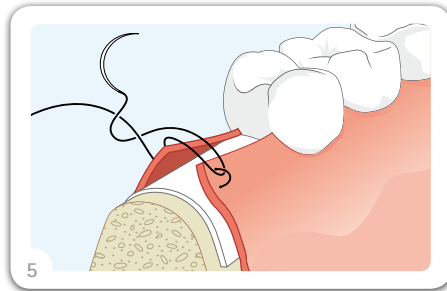
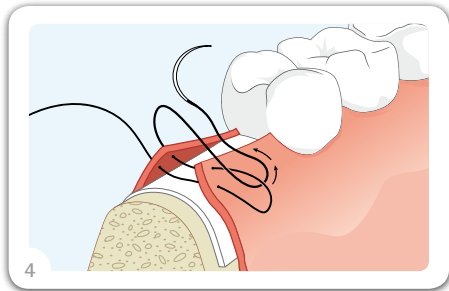
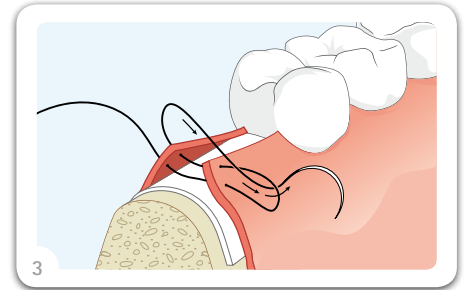
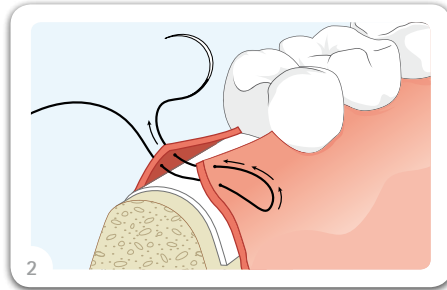
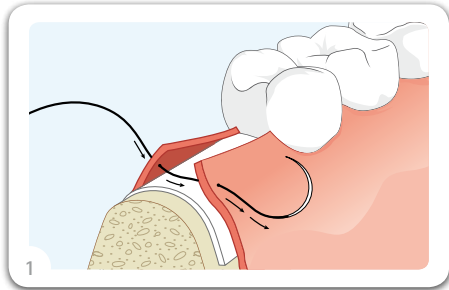
Modified horizontal mattress suture for simple fixation, e.g. of a dental cone.

Horizontal mattress suture



Special suture technique suitable even for the adaptation of larger parallel wound edges.

Laurell's suture



This suture technique permits optimal adaptation of wound edges, e.g. in the alveolus.



RESORBA Wundversorgung GmbH & Co. KG, Am Flachmoor 16, 90475 Nürnberg, Germany
Tel. +49 9128 / 91 15 0 Fax +49 9128 / 91 15 91 infomail@resorba.com www.resorba.com www.diedentalbox.com

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