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Types Raw material T Absorption rate Tissue reaction

Polyglycaprone Subcuticular in skin, ligation, gastrointestinal and muscle surgery No use for extended support Mild Polydioxanone (PDS) Uses as for other absorbable sutures, in particular where slightly longer wound support is required Not for use in association with heart valves or synthetic grafts, or in situations in which prolonged tissue approximation under stress is required Mild gut anastomoses, vascular Polyglactin General surgical use where absorbable sutures required, e.g. ligatures. Has become the ‘workhorse’ suture for many applications in most general surgical practices, including undyed for subcuticular wound closures. Ophthalmic surgery Not advised for use in tissues that require prolonged approximation under stress Mild Catgut As for plain catgut As for plain catgut. Synthetic absorbables are superior Moderate Catgut Ligate super /f_i cial vessels, suture subcutaneous tissues. Stomas and other tissues that heal rapidly Not for use in tissues that heal slowly and require prolonged support. Synthetic absorbables are superior High Absorbable suture materials. TABLE 7.2 Suture Frequent uses Contraindications Tissue reaction ® , Monosyn ® 90–120 days 21 days maximum Copolymer of glycolite and caprolactone Mono /f_i lament Monocryl oximately 70% remains days. Complete absorption at 180 days Appr at 2 weeks. Approximately 50% remains at 4 weeks. Approximately 14% remains at 8 weeks Polyester polymer Mono /f_i lament. Dyed or undyed PDS ® , Novosyn ® Complete absorption 60–90 days Approximately 60% remains at 2 weeks. Approximately 30% remains at 3 weeks Copolymer of lactide and glycolide in a ratio of 90:10, coated with polyglactin and calcium stearate Braided multi /f_i lament Vicryl om healthy edictable and not omic anned with chromium salts to Phagocytosis and enzymatic Hydrolysis minimal until 5–6 weeks. Hydrolysis minimal at 90 degradation within 90 days Lost within 21–28 days. Marked patient variability. Unpr recommended sheep or cattle. T improve handling and to resist degradation in tissue Chr Chromic catgut om Collagen derived fr Phagocytosis and enzymatic degradation within 7–10 days Lost within 7–10 days. Marked patient variability Unpredictable and not recommended Collagen derived fr healthy sheep or cattle Plain Catgut in vivo etention Absorption rate Tensile strength r Raw material Types Common name

Figure 7.12

1/2 curved J needle Cross- section Cutting needles for stitching skin Needles used for suturing the bowel The threads are swaged into the needles Types of needle.

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Revision #1
Created 2025-12-31 15:26:01 UTC by Omar Ayman
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