

CYTOFLEX® RESORB

Resorbable PLA / PGA Barrier Membrane

Microporous Cytoflex® Resorb membranes consist of three integral layers designed to promote gingival tissue attachment and prevent fibroblast down growth. All three layers are structurally integrated, resulting in a flexible membrane with superb handling properties and high nutrient permeability. Made of biocompatible poly (lactide-co-glycolide) copolymers, Cytoflex® Resorb membranes are non-pyrogenic, non-immunogenic and maintains a barrier framework for over two months after implantation. The resorbable membrane does not require presoaking before administration, and dissolves within six months after implantation.



Advantages

Easily Adaptable

Over 2-month barrier function

Non-pyrogenic, non-immunogenic

Available Sizes

12 x 24mm

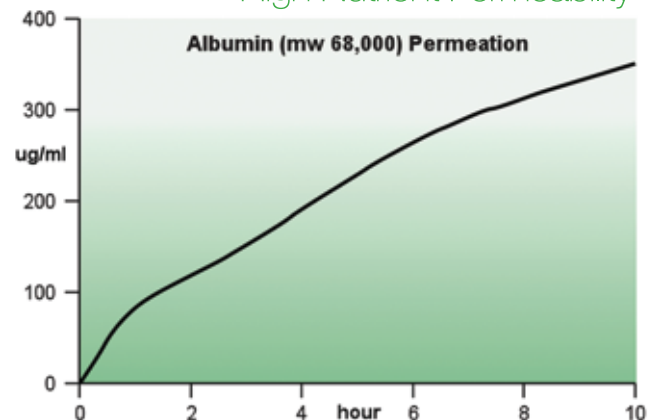
20 x 25mm

30 x 40mm

Adapts Easily to Tissue Contour



High Nutrient Permeability



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Evaluation of Regeneration Capacity

The performance of Cytofex® Resorb barriers was evaluated in a beagle dog model. Bilateral infrabony defects were surgically created at the distal aspects of both mandibles in eight beagle dogs. A Cytofex® Resorb membrane was trimmed to cover each defect in accordance with GTR procedures. Post-operation, wound healing was calm and uneventful. Membrane resorption and regeneration progress was assessed at 4, 8, 16, and 24 weeks, respectively. Histological analysis demonstrated the regeneration of new cementum, periodontal ligaments and alveolar bone tissue in the protected infrabony defect. Over time, the regenerated tissue remodeled and organized into mature tissue. The barrier frame remained largely intact up to 16 weeks and was completely resorbed at 24 weeks after implantation.

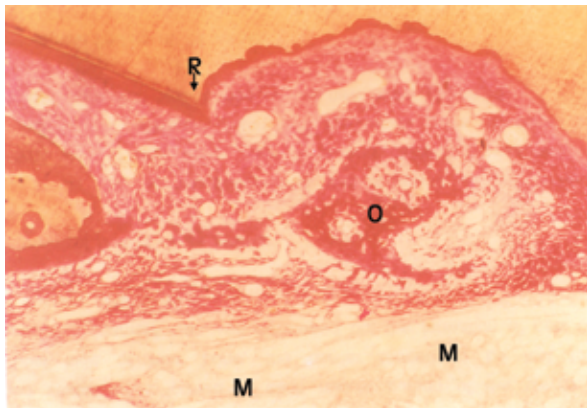


Fig 1. Micrograph (100X) of a defect area at 4 weeks. Osteoid tissue (O), blood vessels and periodontal ligament cells originated from the alveolar crest. Barrier frame (M) remained intact in its integrity. (R) denotes the apical reference point of the defect.

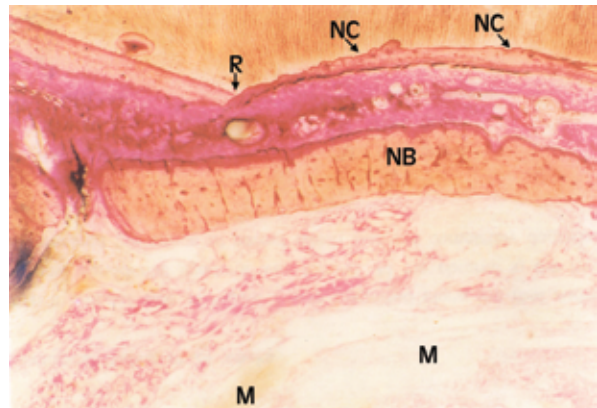


Fig 2. Micrograph (40X) of a defect area at 8 weeks. New bone (NB), new cementum (NC), and periodontal ligament tissue grew toward the coronal end of the defect. The barrier (M) exhibited superficial resorption, but maintained its structural integrity.

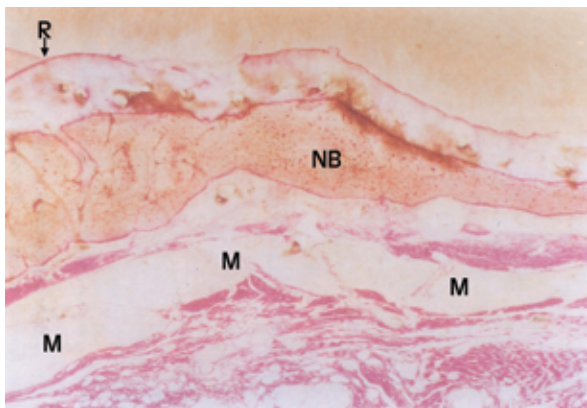


Fig 3. Micrograph (40X) of a defect area at 16 weeks. Harversian structure emerged. More new bone, cementum and periodontal ligament tissues regenerated and remodeled. The barrier frame remained but continuous structure was partially lost.

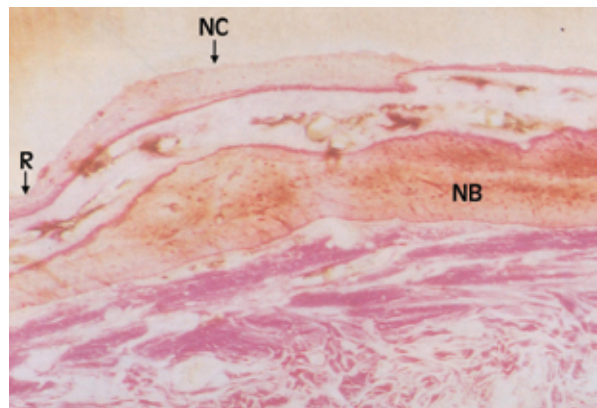


Fig 4. Micrograph (40X) of a defect area at 24 weeks. New cementum, periodontal ligament and regenerated bone with Harversian structure matured and became organized. The barrier frame was almost completely resorbed.