

Table 4-2**Selected Nonabsorbable Sutures by Manufacturers and Products**

Manufacturer	Product

Source: Kalorama Information

Surgical Silk

Surgical silk is an animal product made from the fiber spun by silkworm larvae in making their cocoons. From the raw state, each fiber is processed to remove natural waxes and fumes. Fibers are braided or twisted together to form a multifilament suture strand. The braided type is used more frequently because surgeons prefer its high tensile strength and better handling qualities. Surgical silk is treated to render it noncapillary. It is also dyed. Silk is a true nonabsorbable material. It loses much of its tensile strength after about one year and usually disappears within two years. It gives good support to wounds during early ambulation and generally promotes rapid healing. It causes less tissue reaction than surgical gut, but it is not as inert as most of the other nonabsorbable materials. It is used frequently in the serosa of the gastrointestinal tract and to close fascia in the absence of infection.

Virgin silk suture consists of several natural silk filaments drawn together and twisted to form strands for tissue approximation of delicate structures, primarily in ophthalmic surgery

Dermal silk is a strand of twisted silk fibers encased in a nonabsorbent coating or tanned gelatin or other protein substance. This coating prevents in-growth of tissue cells and facilitates removal after use as a skin suture.

Surgical Cotton

Cotton is a natural cellulose fiber. Suture is made from individual, long-staple cotton fibers that are cleaned, combed, aligned, and twisted into a smooth multifilament

Table 4-22

**World Market for Biological Dressings for
Surgical and Trauma Wounds, Revenues by Segment
(Artificial Skins and Collagen Products)
2001-2011**

Year	Manufacturers' Revenues (in millions)			Growth Rate
	Artificial Skins	Collagen Products	Total	
2001				
2002				
2003				
2004				
2005				
2006				
2007				
2008				
2009				
2010				
2011				

Period	Compound Annual Growth Rate		
	Artificial Skins	Collagen Products	Total
2001–2006			
2006–2011			
2001–2011			

Source: Kalorama Information