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## Historical briefs

### The origin of the term “stent”

A stent is a supporting device, such as a mold fashioned to hold a graft in place or a cylinder or tube used to support an anastomosis during the healing process (1). Although the word is used widely and frequently by physicians, most are unaware of its origin. In 1978, an article written by two plastic surgeons of Boston, J. B. Mulliken and R. M. Goldwyn, undertook to correct this deficiency in our knowledge. Their opening statement is as follows: “Stent is an operating room byword associated primarily with skin graft fixation” (2).

Now, it is no longer necessary to look in the operating room to find stents. They are everywhere. Stent has become one of the most commonly used words in several medical disciplines, most of which have nothing to do with skin graft fixation. Today, endovascular stents are widely used to keep angioplasty sites open, to allow healing in the anastomosis of small vessels while maintaining patency, and to perform endovascular repair of aortic aneurysms. Stents are also placed in tracheas, across biliary anastomoses, in transcatheter intrahepatic portal systemic shunts, and in many other sites.

Charles Thomas Stent, the man from whose name the word *stent* is derived, was a London dentist born in 1807. He became a dentist at a time when materials for making dental impressions were generally unsatisfactory. After working with different compounds, he developed a mixture that provided improved results. The substance was called “Stent’s material” and was produced in his home. His two sons, Charles Robert Osbourn Stent and Arthur Howard Osbourn Stent, also both London dentists, worked with him in this venture. The only known work published by him is found in *Dental Review* in 1859, in which he states: “I used the improved white plastic compound lately

introduced by me to the Profession, which sets in the mouth in a minute or two, so that it can be removed without injury to the impression” (3).

In “Studies of Plastic Surgery of the Face” (4) by J. F. Esser, MD, of Holland published in 1917, we see the gradual evolution in the use of the word from *Stent’s denticle mass* to *stents mould* and *stents*. H. D. Gillies’ work, “Plastic Surgery of the Face” (5), published in 1920, states: “The dental composition for this purpose is that put forward by Stent and a mould composed of it is known as a ‘Stent.’” Stent, as Esser and Gillies used the word, was a moulage (cast) of Dr. Stent’s dental compound that was molded into any shape to hold a skin graft into an often irregular defect with even pressure.

It is remarkable how the use and meaning of this five-letter word have expanded in a quarter of a century.

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1. Haubrich WS. *Medical Meanings*. San Diego: Harcourt Brace Jovanovich, 1984:229.
  2. Mulliken JB, Goldwyn RM. Impressions of Charles Stent. *Plast Reconstr Surg* 1978;62(2):173–176.
  3. Stent CT. A new articulating and bite frame. *Dental Rev* 1859;1:82–83.
  4. Esser JFS. Studies in plastic surgery of the face. *Ann Surg* 1917;65(3):297–315.
  5. Gillies HD. *Plastic Surgery of the Face*. London: Oxford University Press, 1920:10.

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