## Wound Treatment For Various Cases, Because There Is Always Something To Glue

A report about a wound adhesive which is convenient for the medical practice in many respects by Dr. Hans H. Sellmann, DDS

In medicine there is a tendency to turn back to old, familiar (and approved) treatment methods after some years. Why have they been forgotten? Thus, "Adhesion instead of Sutures or Clamps" has come into fashion again, although this method has been known since decades. According to a rumor, the American army treated wounds with acrylate adhesives already during the 1940's.

However, in the beginning no difference was made between ethylene and methylene. Due to the toxic attribute of methyl, wound adhesives got a bad reputation. Unfortunately, the negative characteristics of methyls are still transferred to the commonly used cyanoacrylates of today, although the nowadays applied wound adhesives are neither toxic nor water soluble.

## No longer removal of stitches

It is a mystery to us doctors, why patients are so afraid of getting the stitches removed, as this is not hurting if the patient is keeping calm during the procedure. It is very easy to convince a patient of adhesion, when it is explained that the detested procedure of removing the stitches is not necessary.

Nowadays, of course sutures don't have to leave necessarily unaesthetic scars any longer. Especially in the mucogingival surgery it is possible to lay such fine sutures that they are almost invisible. But we do not always have the time, the "right touch" and we are not always in favor of spending the money for the needle-suture-combination 7-0. And there are also other indications for adhesion.

According to Christine Meyer-Haake, (yes, she is still active in this business) the tissue adhesive **EPIGLU**® is the best invention since band aid. Of course, you can not abstain from subcutaneous sutures when a wound is very deep. Nevertheless, the superficial wound treatment can be performed with **EPIGLU**®, and another appointment to remove the stitches is avoided. Irrespective of their length, all cuts, lacerations and surgical incisions can be closed with tissue adhesive if they do not bleed any more, are not infected and not older than 6 hours.

**EPIGLU**® is a medical device class IIb and has optimal attributes for the compatibility to the human tissue. This product has been licensed already in 1995 and according to the manufacturer Meyer-Haake GmbH Medical Innovations in Wehrheim, Germany it is used within Germany and many other countries, like Australia, Central and South America, South Africa, India, Pakistan and so on. Allergic reactions are not known.

In cases of smaller accidents with cuts or lacerations anaesthesia is not necessary, therefore, adhesion has naturally established itself very fast in the paediatricians (dentists) practices. The adhesive causes no burning sensation and it polymerizes very quickly. This is very popular with children (and with their mothers, as well) as the wound treatment can be performed without causing additional tears. In the dermatological practice, in the oral and maxillofacial surgery and in plastic surgery, as well as in the emergency room adhesion instead of sutures or clamps has become a natural part of the standard equipment. I was especially impressed to hear e. g. that at the Tehran Burn Clinic skin meshes were adhered without irritation or pain. The operation time was reduced to half the time.

You easily hurt yourself with an instrument in your private practice and then it is almost impossible to put on a glove, when you have a band aid. With an adhered wound this is no problem. The injury to the author's thumb (picture 1) was moistened with water after adhesion, which resulted in immediate polymerization. The color change of the adhesive from clear to white in this process is tolerated in favor of the promptness of the polymerization.



Pic. 1: A wound at the thumb treated with **EPIGLU®**. A glove can be worn without any problems.

Accidents at home, the scratch from a cardboard box, the painful cut from fine paper or a slight burn can be easily and practically closed with the adhesive. Asked what he would take with him if he would be stranded on a deserted island, a collegue from Sauerland, Germany answered: "Definitely, this adhesive!" I also recommend it for holidays at the seaside or for a sailing trip. Wounds treated with **EPIGLU**® are not influenced by salt water.

Using the dispensing pipettes the adhesive can be applied sparingly and precisely inside and outside of the oral cavity. In the oral cavity the polymerization, which is implemented by absorption of OH-ions follows especially fast. To avoid that the adhesive peels off too fast, the adhesive should be smoothed out thinly at the wound edges. The idea "the more the better" does not work here.



Picture 2: Acute therapy resistant aphtha.

EPIGLU® can not only be used as a substitute for sutures but also to cover sutures. Thus the problematic patient, whom we all meet now and then, is so not able to fool around the sutures with his tongue. The ideal result is achieved with gaping wounds, when the wound edges are closely adapted and the adhesive is applied to the surface only in thin layers



Picture 3: **EPIGLU**<sup>®</sup> is applied and pain ceases immediately.

Up till now, we have talked about bigger wounds, but the adhesive is also suitable for the treatment of plain wounds in the mouth after removal of skin lesions or smaller benign tumors (fibromas etc.). It works wonders in healing and curing pain when applied to therapy resistant aphthae (pictures 2 and 3) or to decubitus (pictures 4 and 5) resulting from pressure marks after modification of dental prosthesis.



Picture 4: An indolent patient with a severe decubitus after relining the overdenture prosthesis.

There are long lasting prejudices about adhesives; they are too expensive, too difficult to apply, the polymerization takes too long, shelf life is too short and so on. I have personally checked all these points and to my opinion none fits the product used.

It is of great advantage that **EPIGLU®** is available in 3g tubes which are re-usable and as single dose with 0.3 ml content for disposable use. For the operational theatre the adhesive is applied from sterile aids in order to avoid cross contaminations.



Picture 5: Here again, the application of **EPIGLU®** leads to protection and painlessness.

The research of independent institutes has testified that this adhesive is no culture medium for germs; on the contrary, it even has an inhibitive effect on existing germs. Shelf life of this product is 3 years when stored in the deep freezer. No thawing is necessary prior to use. So, using this product bears no risk!

## There is more to treat than you can imagine

There are much more wounds to treat in a dentist's practice than you can think of. After a short time, when you have adapted your treatment procedures to the application of adhesives you will get used "to grab the tube". Pay attention that your staff always reminds you to use the adhesive. It is a joy to experience how quick, nice and unremarkable thus treated wounds are healing.

The Meyer-Haake GmbH Medical Innovations company is known for its detailed information which can be downloaded from www.meyer-haake.com. On page 2 of the  $\mathbf{EPIGLU}^{\$}$  brochure you will find all FAQs to "adhesion instead of sutures" extensively answered. For further information a CD is available; it can be ordered from the web page and send to you along with other information. On the CD you will find many valuable hints along with various medical examples for application.

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