

# Frequently asked questions

## Dental

### | What does the osmed tissue expander consists of?

The osmed tissue expander is a self-filling device consisting of an osmotic active hydrogel, which main components are Methylmethacrylate and N-Vinylpyrrolidone.

### | Is the material used in the osmed tissue expander also used in other devices?

Yes, the hydrogel used in the osmed tissue expander is commonly used in contact lenses.

### | Is there a risk of uncontrolled oversized swelling?

No, osmed tissue expanders grow 5 to 7 times fold (depending on product type) from its original dried, implantation size like declared in the brochure. The special manufacturing procedure gives a memory effect to the material which achieves, that accurately that shape and size will come out in the human body, that has been produced before in the factory.

### | Why is the osmed tissue expander placed in a silicone shell?

The osmed tissue expander comes in a silicone shell with an exact number and size of holes to assure gradual and consistent swelling of the device. The flap serves for fixation of the expander.

### | What are the indications for use of the osmed tissue expander?

Tissue expansion prior to extensive bone augmentation surgery, e.g.

- ⤿ Onlay grafting with bone block grafts
- ⤿ Other bone regeneration procedures

### | How well is the osmed tissue expander tolerated in respect to pain?

The osmed expander's constant gradual expansion greatly minimizes the patient's discomfort. Conventional expanders require periodic large volume fillings (needle

sticks), which create pressure peaks and are therefore associated with a larger degree of discomfort.

| Comment the potential infection rates with conventional expanders compared to the osmed tissue expanders?

Since the fill process is automated with the osmed tissue expander, the risk for exterior infection is greatly reduced.

| Is it possible to stop swelling after implantation?

During implantation the osmed tissue expander just has about 1/5 of the final volume. This is quite different to conventional expanders. Therefore the necessity to stop the swelling is considerably reduced. Additionally an overfilling is suspended as the expander swells continuously in very small steps without pressure peaks. However stopping is not possible. If the application is according to the indication and the right size of the expander is chosen via the template, the tissue is additionally vascularized. Thus, a perforation is an exception.

| Is the expander inserted sub- or supra-periosteal?

The expander can be inserted both ways. There is more practical experience with the split flap technique. Disadvantage is the more elaborate surgery technique, which affords an experienced surgeon. Advantage is that the periosteum stays unharmed, a protection of the bone is ensured. Further there are less post-operative irritations. Subperiosteal application has an easier handling, especially if the periosteum is not cut at the ridge, but above the expander.

| Is it possible to use the tunnel technique to insert the expander?

The tunnel technique can be applied. An incision of 1/3 of a circle is reasonable to prepare an entrance for the expander and also create sufficient access to fixate the screw.

| What is the duration time for the expander?

The expander should be at least 4 weeks in situ and can stay up to 8 weeks.