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## FAQ treating wounds with polihexanide

### **What concentrations of polihexanide are recommended for treating wounds?**

The 2004 consensus recommendation for the standard concentration range for treating wounds is 0.02% to 0.04% polihexanide [1]. Concentrations greater than 0.04 % are considered toxic [3].

### **Are there different indications for the two polihexanide concentrations?**

The higher concentration of 0.04% polihexanide is preferred for the initial treatment of acute and very contaminated or infected wounds. You can switch to the lower polihexanide concentration of 0.02% once healing has begun or for long-term treatment. Both concentrations are very well tolerated by the tissues.

### **Why is the highest polihexanide concentration limited to 0.04%?**

Tissue cultures and animal studies have shown that polihexanide concentrations greater than 0.04% have negative effects on the course of wound healing. Clinical experience with sensitive, poorly healing wounds confirms this finding. Limiting the polihexanide concentration to 0.04% also corresponds to the expert recommendations on treating wounds [1-4].

### **Why is Ringer's solution used as the base solution?**

Ringer's solution is a physiological isotonic electrolyte solution that is very well tolerated by the tissues. Using an isotonic solution prevents swelling of the skin and irritation of the wound area, as there is no fluid or electrolyte exchange with the natural secretions.

### **How well is it tolerated on the wound?**

The combination of Ringer's solution with 0.02% to 0.04% polihexanide proved to be very well tolerated by the tissues in experimental testing and clinical trials. New formation of healthy tissue is not impaired. Its use is painless for the patient.

### **How long does it take for polihexanide to work?**

According to the consensus recommendations, polihexanide should be used to wet the wound thoroughly and left on for about 15-20 minutes [1, 2]. According to study reports, irrigation techniques associated with much shorter application times of about three minutes already considerably reduce wound contamination [5]. Reducing surface tension and the resulting surfactant-like properties of the product provide optimal mechanical cleansing during wound irrigation. The product does not have to be rinsed off, as it is very well tolerated by the tissues. Residues of the polihexanide in the wound or on the skin prolong the effects.

### **Is it possible to use polihexanide for long-term treatment?**

The combination of Ringer's solution with 0.02% to 0.04% polihexanide is very well tolerated by the tissues and can therefore be used to treat wounds over a long period. There are case reports of polihexanide being used to treat chronic wounds over a period of several months.

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### How often does the dressing need to be changed?

The frequency of dressing changes shall be determined on the basis of the nature and status of the wound. It is important that the wound is kept well moistened. If using moist compresses, they will need to be wetted with irrigation solution several times a day, as necessary. If wound gels are applied, the properties of the gel optimise the moisture-retaining effect. Depending on the amount of gel applied, the interval between dressing changes can be prolonged.

As a general rule: dressing changes can considerably delay wound healing. Therefore: the fewer unnecessary dressing changes the better.

### Can the solutions be used for vacuum instillation therapy?

Yes. Polihexanide solutions have been used successfully for vacuum instillation therapy for many years.

### Can it be used with MRSA?

Polihexanide has a broad antimicrobial spectrum that includes MRSA. No bacterial resistance has yet been reported. It can be used for wounds infected with MRSA, as well as for whole body washes.

### Is use possible with biofilms?

Biofilms impede wound healing, and are best removed by mechanical cleaning (e.g. wiping the wound out thoroughly). Any remaining biofilm residues can be removed by adequate wound irrigation. Conserving dressings with polyhexanide are then suitable to prevent recontamination of the wound and thus prevent the formation of new biofilms.

### Can it be combined with alginates or silver-containing wound dressings?

Combination with alginates: in-house investigations confirm that alginates have a bonding capacity with polihexanide. It does not, however, significantly restrict the effectiveness.

Combination with silver-containing wound dressings: polihexanide with Ringer's solution may cause silver chloride to precipitate. It should be remembered that polihexanide alone is sufficient to treat the wound; it is not necessary to introduce other antimicrobial substances such as silver.

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### References:

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