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**Topic :** Adhesion Prevention

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Direct comparison of adhesion barriers in a rat model

A number of different adhesion barriers are now available in Europe and USA. However a direct comparison of their efficacy is difficult due to the differences in the pre-clinical models used in the literature. There are also no direct comparisons in humans either. Here we aim to directly compare Adept(R), Spraygel(R), Seprafilm(R) and Intercoat (R) in a single animal model.

In-vivo adhesion prophylaxis was assessed in a rat model involving traumatization by standardised electrocautery and suturing. Treatment with Adept(R), Spraygel(R), Seprafilm(R) or Intercoat(R) was compared to an untreated control group. Each group consisted of 15 animals and a total of 75 rats were operated. The relevant tissue was also examined histologically.

Adhesion formation was significantly reduced after treatment with the adhesion barriers than after no treatment. Coverage of the traumatized areas with adhesions was 79% in the control group. This was reduced to 54% by the liquid barrier Adept(R) ( $p < 0.05$ ) and 59% ( $p < 0.05$ ) by the gel barrier Intercoat and 46% by the solid barrier Seprafilm ( $p < 0.01$ ).

There are significant differences in the efficacy of the currently available adhesion barriers.