

Electronic Supplementary Information

Molecular weight-modulated electrospun poly(ϵ -caprolactone) membranes for postoperative adhesion prevention

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Rheological Properties of PCL Solutions with Different Molecular Weights

The viscosities of PCL solutions with different molecular weights were measured using MCR 301 Rheometer (Anton Paar, Austria) at 25 °C with a SH47 spindle at 80 rpm. A cone and plate measurement system was employed with a diameter of 25 mm and a cone angle of 1°. A solvent trap was used to minimize sample evaporation.

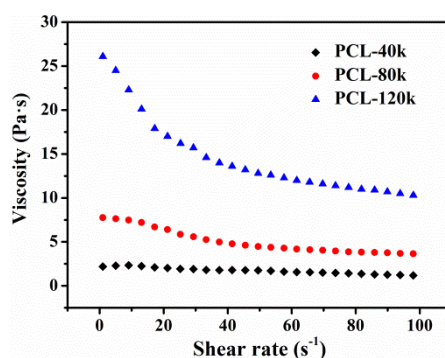


Fig. S1 Changes of steady shear viscosity as a function of shear rate for the electrospun PCL membranes with different molecular weights.

Effect of PCL Molecular Weight on Fiber Hydrophilicity

The hydrophilicity of the electrospun PCL membranes was qualitatively determined by measuring the contact angle of material with distilled water using KRUSS drop shape analyzer (DSA 100). The films were fixed into the custom made sample holder of the drop shape analyzer. The distilled water was taken in a 2.0 mL leuc lock syringe fitted with blunt edge needle. A single drop of volume $\sim 2.0 \mu\text{L}$ was poured on the membranes. Drop shape on the surface was recorded using the camera attached with system. The contact angle was measured by sessile drop approximation with the inbuilt software of the instrument.

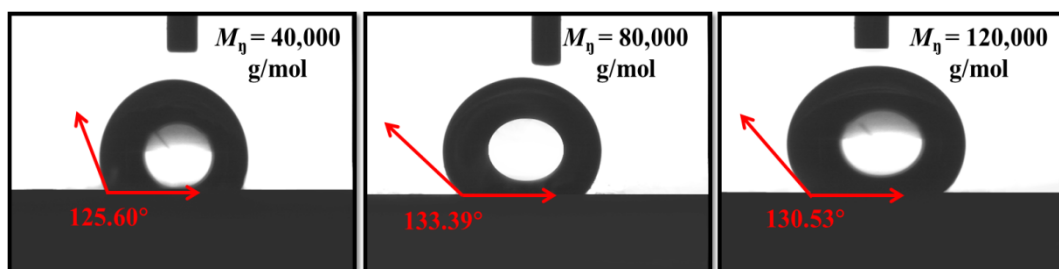


Fig. S2 The contact angle images of electrospun PCL membranes with different molecular weights.