

RESEARCH ARTICLE

3D printing of retainer for post-otoplasty morphology preservation

Supplementary File

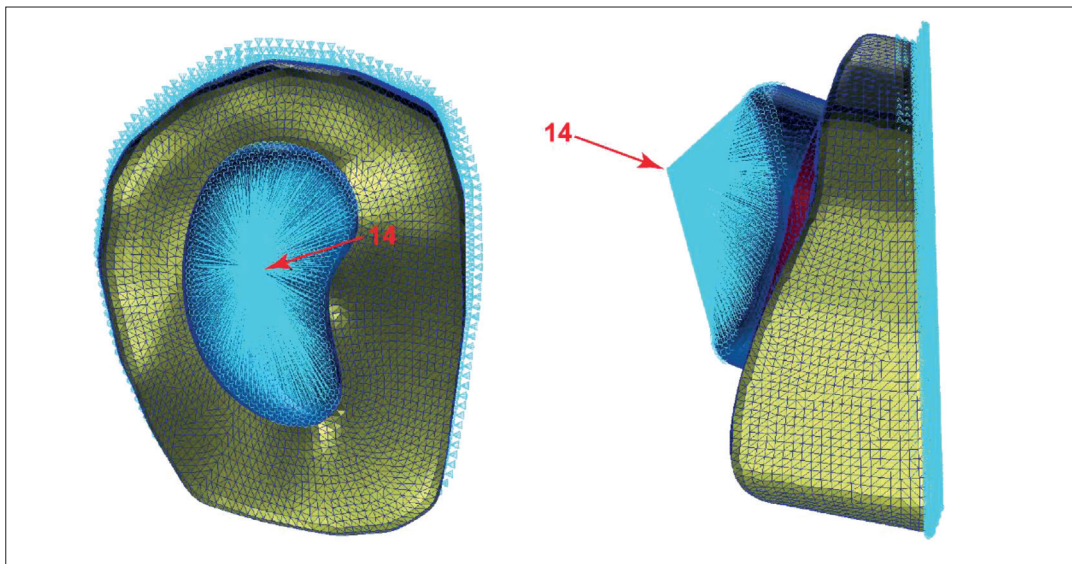


Figure S1. Illustrations of constrained boundaries used in finite element analysis (FEA).



Figure S2. An external stretching device widely used in clinical practice as a non-surgical ear correction system for newborn ear deformities.

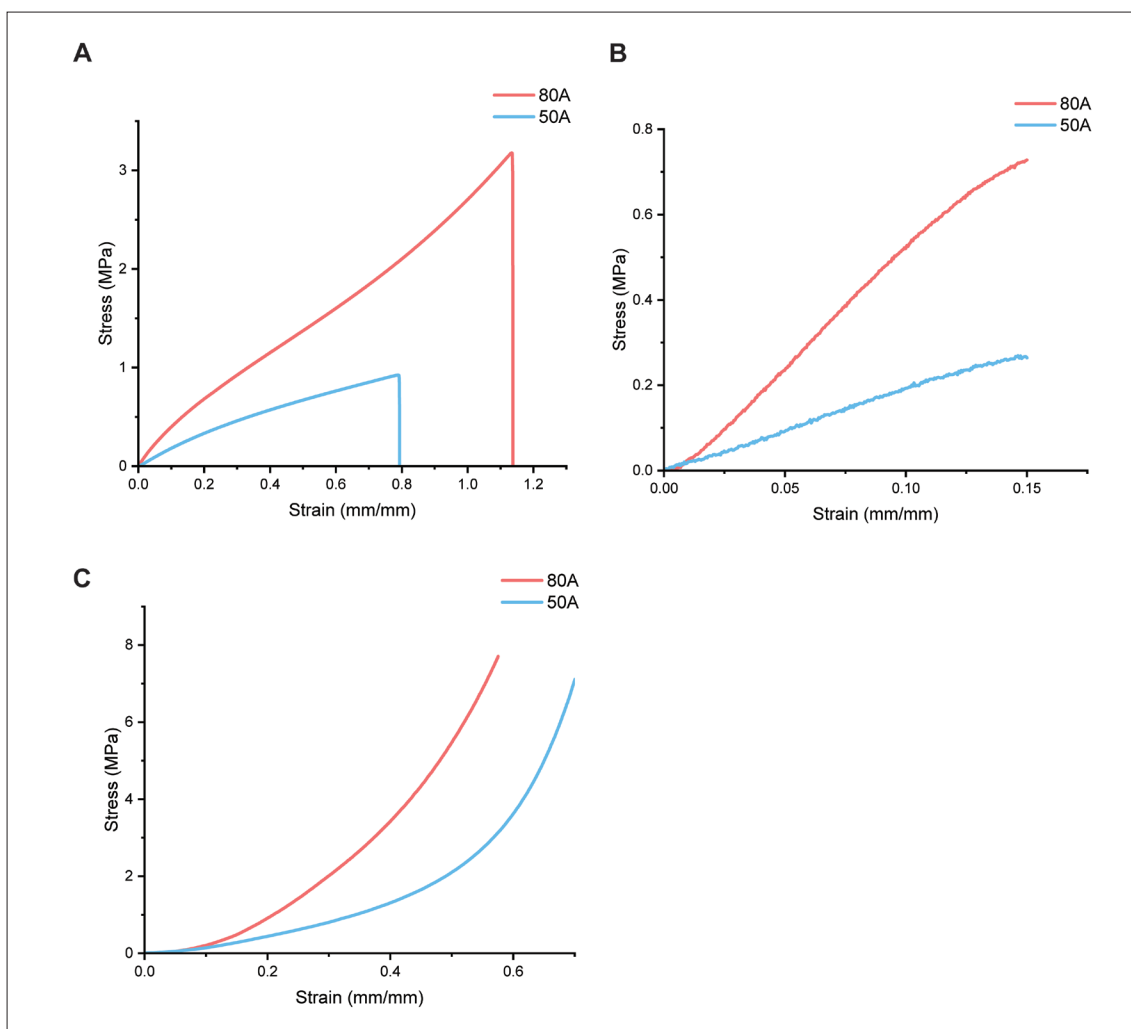


Figure S3. Mechanical tests of BioMed Flex 80A Resin (80A; red) and BioMed Elastic 50A Resin (50A; blue). (A) Stress-strain results of the tension test, (B) stress-strain results of the three-point bending test, and (C) stress-strain results of the compression test.

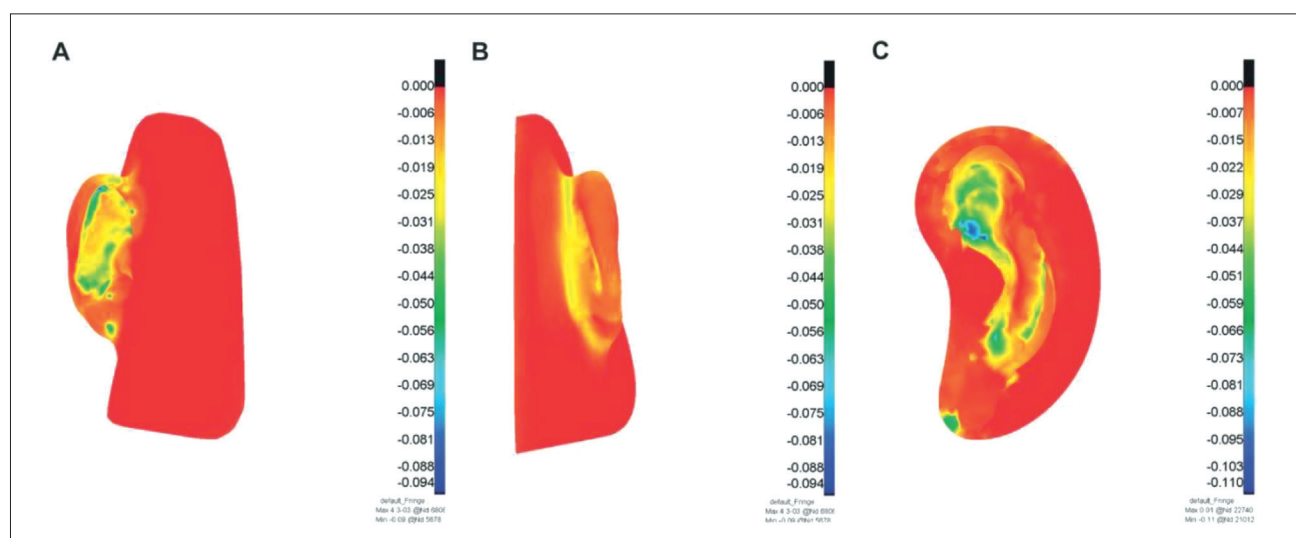


Figure S4. Contour plots of the minimum principal stress on (A) the surface of the auricle, (B) the back of the auricle, and (C) the retainer.

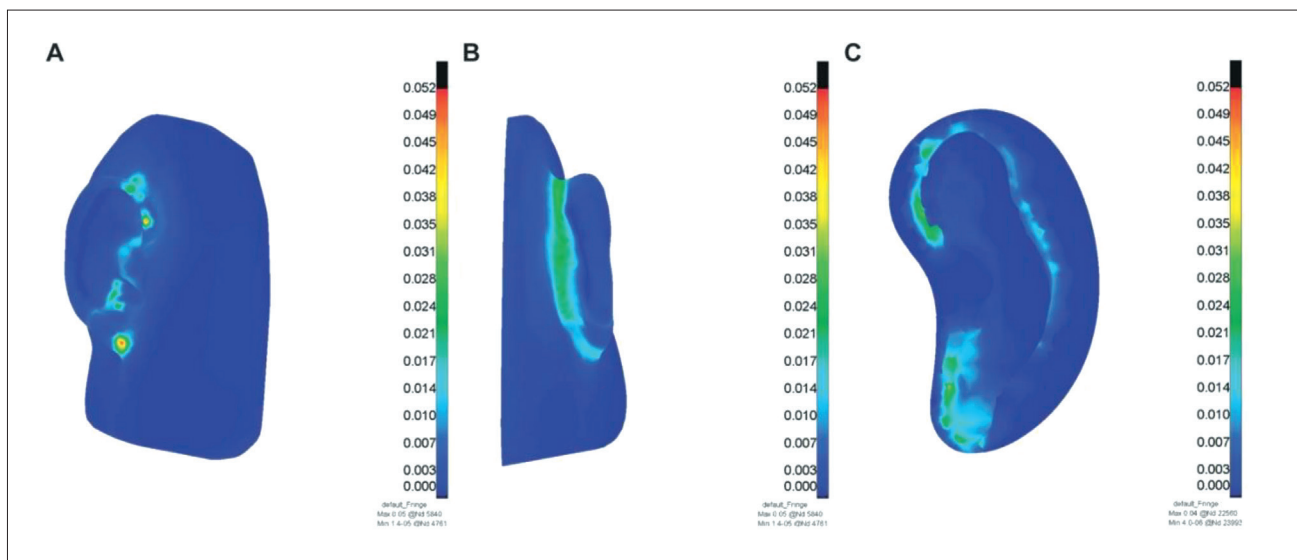


Figure S5. Contour plots of von Mises equivalent strain on (A) the surface of the auricle, (B) the back of the auricle, and (C) the retainer.

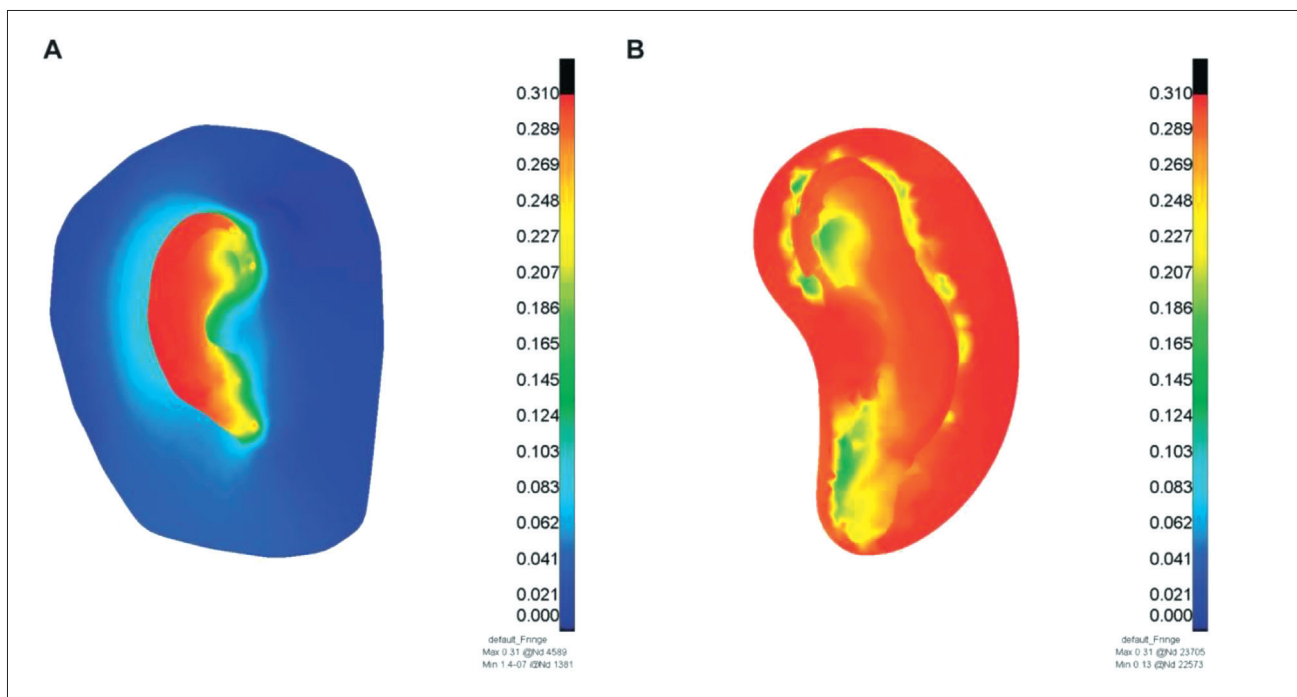


Figure S6. Contour plots of von Mises equivalent strain on (A) the surface of the auricle, and (B) the retainer.