Rotator Cuff Repair: Patch the Shoulder

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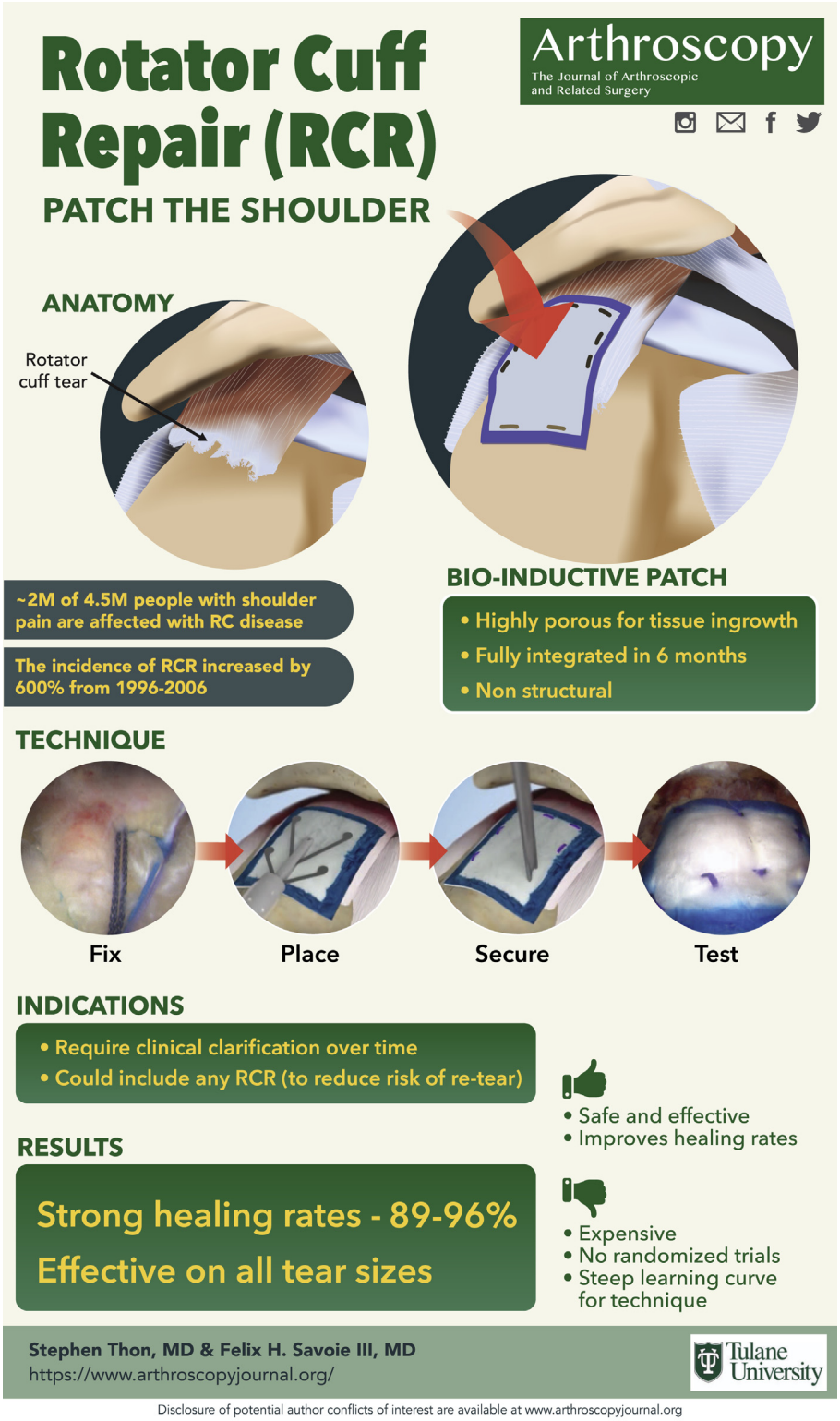

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Abstract: Rotator cuff tears are a common problem in our growing and aging population. Because of this, rotator cuff repair is consistently one of the most frequently performed operations by orthopaedic surgeons every year. Successful outcomes have been directly correlated to a successful repair to the tuberosity; however, healing rates have varied greatly depending on tear size, tear type, and tear chronicity. Despite advances in techniques and repair technology, healing rates have remained relatively stable.

Improving the biology at the site of a rotator cuff repair has been proposed as a way of increasing healing rates. A recent bio-inductive patch has been introduced to improve the vascularity and collagen formation at the site of tendon repair. The implant is made from type I bovine collagen that is highly porous. It is nonstructural and does not provide any tensile strength. The patch improves collagen formation at the site of a repair, thus decreasing strain on the repaired tendon.

Limited clinical trials involving the collagen patch have shown healing rates from 89% to 96% in small sample sizes. The patch has been successfully and safely applied in tear sizes ranging from partial thickness tears to massive tears, as well as primary and revision repair settings. To date, no adverse clinical reactions to the patch have been observed; however, no randomized clinical trials have been performed, and the patch is a significantly increased cost to the procedure.

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