Also, multiple re-use of sternums weakens the bone, introducing further error. Therefore we use sheep sternum as our biologic model of sternotomy closures.

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Reply to the Editor:

We appreciate the comments of Casha, Yang, and Cooper regarding our biomechanical analysis of sternotomy closure. It is interesting and reassuring that our measured results agree with what is predicted by the formula that they have developed. Both studies show that physiologic amounts of force can disrupt traditional sternal closure. We agree that a human cadaver is not a perfect model, but neither is the sheep sternum. The size and shape of the ovine sternum and the anatomic dimensions of the ovine thoracic cage are quite different from those of the human being. In this regard, polyurethane foam has been used as a bone analog in orthopedic research and may provide an option for additional studies in this area.

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