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Because strain varies approximately linearly as a convolutes.

$$\begin{bmatrix} B_z \\ \frac{d^2 v}{dx^2} = 0 \end{bmatrix} \qquad y_c = \frac{-B_z}{\overline{EA}} \cong \frac{r_{bladder}}{3} \qquad contained by the second second$$

$$\frac{vdA}{dA} \rightarrow E_{convolute} \cong \frac{E_{material}}{3}$$
 Note that the convolution of the convo

$$Pr^2$$

$$EI = E \cdot (\pi r^3 t)$$



Due to the unrealistic increase in bending stiffness during pressurization, the effects of the restraint layer must be considered.

[3] Opperman, R.A., Waldie, J.M., Natapoff, A., "Anthropometric and Blood Flow Characteristics Leading to EVA Hand Injury," 2009.

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**First Order Approximation** 

[6] Mesloh, M., England, S., Benson, E., "The Effects of I Pressure on Hand Strength," 2010.