SUPPORTING INFORMATION

Multiscale Mechano-biological Finite Element Modelling of Oncoplastic Breast Surgery – Numerical Study Towards Surgical Planning and Cosmetic Outcome Prediction

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Soft Tissue Biomechanics Model Parameters

List of all the parameters used in the biomechanical finite element breast model, and references to the published papers are also provided.

Parameter	**Value**	**Source**
$c_{1,\text{adipose}}$; $c_{2,\text{adipose}}$	80. Pa; 0. Pa	[1, 2]
$c_{1,\text{fibrogland}}$; $c_{2,\text{fibrogland}}$	120. Pa; 0. Pa	[1, 2]
$c_{1,\text{recover}}$; $c_{2,\text{recover}}$	300. Pa; 0. Pa	Estimated
κ	20. kPa	Incompressibility Parameter
$\rho_{0,\text{adipose}}$	910. kg m^{-3}	[3]
$\rho_{0,\text{fibrogland}}$	1020. kg m^{-3}	Adapted from [4]
$\rho_{0,\text{recover}}$	1000. kg m^{-3}	Estimated
α_s; β_s	92.4 Pa; 4.4 –	[5]
$c_{2,\text{skin}}$	-203.4 Pa	[5]
$\rho_{0,\text{skin}}$	1060. kg m^{-3}	[5]
τ_f	1.25×10^{-5} N cm cell^{-1}	Adapted from [6]
α_f	1. –	Adapted from [7]
$\eta_{0,\text{f}}$	10^4 cell cm^{-3}	[6]

References

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