Hard tissue	Modulus (GPa)	Tensile Strength (MPa)
Cortical bone (longitudinal direction)	17.7	133
Cortical bone (transverse direction)	12.8	52
Cancellous bone	0.4	7.4
Enamel	84.3	10
Dentine	11.0	39.3

Soft tissue	Modulus (MPa)	Tensile strength (MPa)
Articular cartilage	10.5	27.5
Fibrocartilage	159.1	10.4
Ligament	303.0	29.5
Tendon	401.5	46.5
Skin	0.1–0.2	7.6
Arterial tissue (longitudinal direction)		0.1
Arterial tissue (transverse direction)		1.1
Intraocular lens	5.6	2.3

Proprietà meccaniche dei tessuti duri e tessuti molli

Material	Modulus (GPa)	Tensile strength (MPa)
Metal alloys		
Stainless steel	190	586
Co–Cr alloy	210	1085
Ti-alloy	116	965
Amalgam	30	58
Ceramics		
Alumina	380	300
Zirconia	220	820
Bioglass	35	42
Hydroxyapatite	95	50

Material	Modulus (GPa)	Tensile strength (MPa)
Polyethylene (PE)	0.88	35
Polyurethane (PU)	0.02	35
Polytetrafluoroethylene (PTFE)	0.5	27.5
Polyacetal (PA)	2.1	67
Polymethylmethacrylate (PMMA)	2.55	59
Polyethylene terepthalate (PET)	2.85	61
Polyetheretherketone (PEEK)	8.3	139
Silicone rubber (SR)	0.008	7.6
Polysulfone (PS)	2.65	75

Proprietà meccaniche di biomateriali metalli, ceramici e polimerici