

Treatment of Osteoarthritis in the Literature

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The goals for the treatment of osteoarthritis (OA) are to relieve pain and associated muscle spasm, maintain and regain joint range of motion (ROM), improve joint health, strengthen supporting muscles, address proprioceptive deficits and advise on lifestyle modifications necessary to improve OA joint functioning.

GOAL	TREATMENT	REFERENCE:
Pain Relief	Modalities (ultrasound, LASER, pulsed electromagnetic field, TENS & neuromuscular electrical stimulation)	(Millis 2004, Michlovitz, Nelson, Sutbeyaz, Gur)
	Massage	(Corbin, Plews, Tappan)
	Thermal therapies (heat or cold)	(Michlovitz, Millis 1997, Steiss)
	Isokinetic muscle strengthening exercises	(Huang)

GOAL	TREATMENT	REFERENCE:
Strengthening (in order to attain increases in joint range of motion, improve joint health, increase muscular strength, improve function and enhance proprioception)	Strengthening (to aid in muscular shock absorption capabilities and minimize fatigue related injuries)	(Millis 1997, Buckwalter)
	Aerobic walking and specific muscle strengthening (to reduce pain and disability in humans, and to increase ROM and improve function)	(Roddy, Roos, Snibbe)
	Moderate exercise (to improve knee cartilage glycosaminoglycan content)	(Roos)
	Aquatic exercise (thus allowing adequate exercise without joint impact and as a cross training tool)	(Stitik, Cochrane, Hamilton, Hudson, Millis 2004)
	Cross training (to reduce repetitions of joint loading and stress)	(Buckwalter, Edge-Hughes)

GOAL	TREATMENT	REFERENCE:
Manual Therapy Techniques (to improve quality of life, functioning, walking tolerance and ROM)	Mobilizations, stretching and joint traction or distraction	(Hoeksma, Crook)
	Manual therapy (as above) in combination with exercise therapy)	(Hoeksma, Deyle)

GOAL	TREATMENT	REFERENCE:
Joint health, cartilage regeneration, and slowing the progression of OA	Pulsed Electromagnetic Field therapy	(Fini, Sutbayez, Fioravanti)
	LASER	(Cho, Lin)
	Glucosamine	(Bruyere, Verbruggen, Johnson, Canapp)
	Cetylated Fatty Acids	(Hesslink, Curtis, Richardson, Kraemer)

GOAL	TREATMENT	REFERENCE:
Improvement in overall functioning and decreased lameness	Weight loss	(Messier, Impellizeri)

GOAL	TREATMENT	REFERENCE:
Preventing Osteoarthritis	Lifelong exercise	(Newton, Buckwalter, Bennell)
	Lifelong weight management	(Kealy)

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