

TYPES OF NON-SURGICAL OPTIONS

for managing knee osteoarthritis

This decision aid aims to help you and your health professional talk about types of non-surgical options for managing knee osteoarthritis. It summarises the findings of scientific research so that you can make decisions that are right for you.

Your health professional can tell you more, including how to access these or similar options and whether they are safe for you.

	EXERCISE OPTIONS	WEIGHT LOSS PROGRAMS (if overweight or obese)	PHYSICAL + PSYCHOLOGICAL OPTIONS	MEDICAL OPTIONS
What did people do?	Attended Tai Chi, walking, muscle strengthening, stationary cycling, yoga, or water-based exercise classes	Completed weight loss programs focused on dietary education, diet, exercise, or a combination	Used a walking stick; received massage; had transcutaneous electrical nerve stimulation; or received manual therapy, heat therapy, or cognitive behaviour therapy.	Took oral NSAIDs or duloxetine (off-label use); had corticosteroid injections; applied topical NSAIDs; or took paracetamol
How much did it improve pain?	Up to a large improvement, depending on the option	Up to a moderate improvement, depending on the program (and amount of weight loss)	Up to a large improvement, depending on the option	A small improvement
How much did it improve function?	Up to a large improvement, depending on the option	Up to a moderate improvement, depending on the program (and amount of weight loss)	Up to a large improvement, depending on the option	Up to a small improvement, depending on the option
How many people had serious side effects?	Up to 5 in 100 people (but unknown for some options)	None (but unknown for some programs)	None (but unknown for some options)	Up to 2 in 100 people
Where can I learn more?	See Exercise Options for Managing Knee Osteoarthritis decision aid	See Weight Loss Programs for Managing Knee Osteoarthritis decision aid	See Physical and Psychological Options for Managing Knee Osteoarthritis decision aid	See Medical Options for Managing Knee Osteoarthritis decision aid

Caution: The research on most of these options was low quality or very low quality. This means that the actual effects of most of these options may be very different from what the research found.

EXERCISE OPTIONS

for managing knee osteoarthritis

This decision aid aims to help you and your health professional talk about exercise options for managing knee osteoarthritis. It summarises the findings of scientific research so that you can make decisions that are right for you.

Your health professional can tell you more, including how to access these or similar options and whether they are safe for you.

	TAI CHI	WALKING	MUSCLE STRENGTHENING	STATIONARY CYCLING	YOGA	WATER-BASED EXERCISE
	<p>Strong recommendation</p> <p>■ ■ ■ ■ ■</p>	<p>Strong recommendation</p> <p>■ ■ ■ ■ ■</p>	<p>Strong recommendation</p> <p>■ ■ ■ ■ ■</p>	<p>Conditional recommendation</p> <p>■ ■ ■ ■ ■</p>	<p>Conditional recommendation</p> <p>■ ■ ■ ■ ■</p>	<p>Conditional recommendation</p> <p>■ ■ ■ ■ ■</p>
What did people do?	Attended Tai Chi classes (for 20–60 mins, 1–3 times a week), sometimes adding or transitioning to home practice (for 15–40 mins, 3–7 times a week)	Attended low- to moderate-intensity walking classes (for 60 mins, 3 times a week) or gradually increased their step count (every day)	Attended individual or group classes at a facility to strengthen their leg muscles (for 15–60 mins, 1–3 times a week) and/or did similar exercises at home (for 30 mins, 1–5 times a week)	Attended indoor stationary cycling classes for osteoarthritis (for 40–60 mins, at least 2 times a week)	Attended yoga classes for osteoarthritis (for 45–60 mins, once a week) with additional practice at home (for 30 mins, 4 times a week)	Attended exercise classes done in a shallow pool that focused on strength, stretching, balance and/or fitness (for 20–60 mins, 2–3 times a week)
How much did it improve pain?	Moderate improvement	Small improvement	Moderate improvement	Large improvement	Large improvement	Small improvement
How much did it improve function?	Moderate improvement	Small improvement	Moderate improvement	No improvement	Large improvement	Small improvement
What were some of the side effects?	Joint, foot, back, and muscle pain	Falling; fracture	Joint, neck, back, and groin pain; falling; fracture; aggravated varicose veins	Joint pain	Musculoskeletal pain	Joint, leg, back, and muscle pain; slipping; cramping; dizziness; heart problems
How many people had serious side effects?	5 in 100 people	1 in 100 people	2 in 100 people	(Unknown)	None	(Unknown)

Caution: The research on all of these options was low quality or very low quality. This means that the actual effects of these options may be very different from what the research found.

WEIGHT LOSS PROGRAMS

for managing knee osteoarthritis

This decision aid aims to help you and your health professional talk about weight loss programs for managing knee osteoarthritis. It summarises the findings of scientific research so that you can make decisions that are right for you.

Your health professional can tell you more, including how to access these or similar options and whether they are safe for you.

	DIETARY EDUCATION + DIET + EXERCISE	DIETARY EDUCATION + DIET	DIETARY EDUCATION
	<p>Guidelines give a strong recommendation to weight loss for people who are overweight or obese but do not give recommendations about these individual weight loss programs</p> <p style="text-align: center;">■ ■ ■ ■ ■</p>		
What did people do?	<p>Attended group and individual classes on dietary habits with health professionals (for 60 mins, once a week)</p> <p style="text-align: center;">– and –</p> <p>Followed a personalised low-calorie meal plan with up to 2 meal replacement drinks or bars per day (every day for the period of the diet)</p> <p style="text-align: center;">– and –</p> <p>Did structured exercise at a facility (for 60 mins, 3 times a week)</p>	<p>Attended group classes on dietary habits with a health professional (for 90 mins, once a week, then once every 2 weeks)</p> <p style="text-align: center;">– alternating with –</p> <p>Followed a low-calorie diet of 6 meal replacement drinks per day (every day for 8 weeks then every day for another 4 weeks later on)</p>	<p>Attended group and individual classes on dietary habits (once a week, then once every 2 weeks, then once a month)</p>
How much weight was lost?	9% of body weight after 6 months	11% of body weight after 12 months	5% of body weight after 18 months
How much did it improve pain?	Moderate improvement	Small improvement	No improvement
How much did it improve function?	Moderate improvement	No improvement	No improvement
What were some of the side effects?	(Unknown)	Constipation, flatulence, dizziness, sensitivity to cold	(Unknown)
How many people had serious side effects?	None	(Unknown)	(Unknown)

Caution: The research on weight loss programs was very low quality. This means that the actual effects of these programs may be very different from what the research found.

PHYSICAL AND PSYCHOLOGICAL OPTIONS

for managing knee osteoarthritis

This decision aid aims to help you and your health professional talk about physical and psychological options for managing knee osteoarthritis. It summarises the findings of scientific research so that you can make decisions that are right for you.

Your health professional can tell you more, including how to access these or similar options and whether they are safe for you.

	WALKING STICK	MASSAGE	TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION	MANUAL THERAPY	HEAT THERAPY	COGNITIVE BEHAVIOUR THERAPY
	<p>Conditional recommendation</p> <p>■ ■ ■ ■ ■</p>	<p>Conditional recommendation</p> <p>■ ■ ■ ■ ■</p>	<p>Conditional recommendation</p> <p>■ ■ ■ ■ ■</p>	<p>Conditional recommendation</p> <p>■ ■ ■ ■ ■</p>	<p>Conditional recommendation</p> <p>■ ■ ■ ■ ■</p>	<p>Conditional recommendation</p> <p>■ ■ ■ ■ ■</p>
What did people do?	Used a wooden walking stick with a T-shaped handle (every day)	Received Swedish or aroma massage from a trained practitioner or did guided self-massage (for 20–60 mins, 1 to 3 times a week)	Had transcutaneous electrical nerve stimulation (TENS), which sends tingling sensations into the body through patches placed on the skin (for 20–60 mins, 2–5 days a week)	Attended sessions where a trained practitioner (e.g., physiotherapist) used their hands and body to slowly and gently apply pressure to and move the knee joint (3 times a week)	Put an electric heat pad on their knee (for 20 mins, 2 times a day, 5 days a week), had a digital moist heat pad put on their knee (for 20 mins, 3–4 days a week), or wore a heat-retaining knee sleeve (for at least 12 hrs a day, every day)	Attended group classes on pain coping or other skills with a psychologist and/or other professional (for 45–120 mins, once a week or once every 2 weeks)
How much did it improve pain?	Large improvement	Moderate improvement	Moderate improvement	No improvement	Small improvement	Small improvement
How much did it improve function?	Large improvement	Moderate improvement	Small improvement	Moderate improvement	No improvement	No improvement
What were some of the side effects?	(Unknown)	Discomfort	Skin reaction	None	None	(Unknown)
How many people had serious side effects?	(Unknown)	(Unknown)	None	None	None	(Unknown)






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MEDICAL OPTIONS

for managing knee osteoarthritis

This decision aid aims to help you and your health professional talk about medical options for managing knee osteoarthritis. It summarises the findings of scientific research so that you can make decisions that are right for you.

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	ORAL NSAIDS	DULOXETINE (off-label use)	CORTICOSTEROID INJECTIONS	TOPICAL NSAIDS	PARACETAMOL
	<p>Conditional recommendation</p> 	<p>Conditional recommendation</p> 	<p>Conditional recommendation</p> 	<p>Neutral recommendation</p> 	<p>Neutral recommendation</p> 
What did people do?	Took nonsteroidal anti-inflammatory drugs (NSAIDs) orally (once or twice a day)	Took the drug duloxetine orally (once a day) [Note: Duloxetine is not approved for this use]	Had an injection of a corticosteroid into their knee joint (usually once only, sometimes once a week (for a short period) or once every 3-6 months)	Applied nonsteroidal anti-inflammatory drugs (NSAIDs) in a cream or gel to their knee (2-4 times a day)	Took the drug paracetamol orally (3-4 times a day)
How much did it improve pain?	Small improvement	Small improvement	Small improvement (for 4-6 weeks only)	Small improvement	Small improvement
How much did it improve function?	Small improvement	Small improvement	Small improvement (for 4-6 weeks only)	Very small improvement	Very small improvement
What were some of the side effects?	Digestive problems (e.g., constipation, indigestion, diarrhoea); respiratory problems (e.g., infection, cold); rash; pain (e.g., joint, back); headache; ulcers; heart problems (including causing death); others	Digestive problems (e.g., constipation, nausea); respiratory problems (e.g., cough, asthma); pain (e.g., joint, muscle); sweating; drowsiness; dizziness; heart rhythm problems; low sex drive; others	Injection site reactions (e.g., warmth, swelling, discomfort, stiffness, fluid accumulation); pain (e.g., joint, back); nausea, cold, headache. There may also be more rapid cartilage loss with repeated use.	Digestive problems (e.g., constipation, indigestion); skin problems (e.g., rash, itching, dryness); pain (e.g., joint, back, neck); headache; respiratory problems (e.g., infection, cold, asthma); others	Digestive problems (e.g., indigestion, nausea, diarrhoea); headache; dizziness; respiratory problems (e.g., infection, cough); pain (e.g., back, neck); abnormal liver function; others
How many people had serious side effects?	2 in 100 people	1 in 100 people	2 in 100 people	1 in 100 people	1 in 100 people

Caution: The research on corticosteroid injections and paracetamol was very low quality. This means that the actual effects of these options may be very different from what the research found.