

CATALOGUE OF



KNEE FRIENDLY EXERCISE

BY PATIENTS – FOR PATIENTS

**INSPIRATION FOR
PEOPLE LIVING WITH
KNEE OSTEOARTHRITIS**

Exercise is good for your health and your knee

It is important to be active and do exercise regularly to maintain or improve general health and wellbeing. But, if you have knee osteoarthritis, you know that it can be difficult to stay active without worsening your knee pain. This catalogue is here to help you find knee-friendly exercises that can keep you fit and healthy.

What do we mean by knee friendly?

"Knee friendly" exercises are those that individuals with knee osteoarthritis can perform at high intensity without significantly worsening their knee symptoms. Here are the key aspects:

Intensity

The exercises should be performed at an intensity that causes shortness of breath and makes it difficult to talk in more than short sentences or one- or two-word answers.

Pain Level

Exercise should not worsen the knee pain to an unacceptable level. This means that while some mild to moderate pain can be acceptable, the exercise should not cause severe pain or pain worsening that lasts more than 24 hours.

Be aware that when starting a new exercise habit, your muscles may become sore (or sometimes painful) after the first sessions. This is perfectly normal and should not be a concern. The soreness is temporary and reaches its maximum on day 2 after starting a new exercise. You will feel the soreness if you stretch, press on, or tighten the muscles.

Why a catalogue of exercises?

Exercise is good for your health, but when you have painful knee osteoarthritis it can be difficult exercise and be physically active. But, not all types of exercise and physical activity cause pain or discomfort for all people. Some can do certain types of exercise and others cannot, but it is not possible to make general rules.

Therefore we created a catalogue of exercises that people with knee osteoarthritis find knee friendly. The hope is that it will inspire you to find exercise activities that you can do to stay healthy without worsening your knee pain.

How the catalogue was developed

We conducted a survey to identify exercises that people with knee OA find manageable and beneficial. Here is how we did it:

1. Listening to People with Knee OA

We asked people living with knee OA to tell us about exercises they can do that do not cause severe or long-lasting knee pain.

Participants provided descriptions of exercises they considered "knee-friendly," defined as activities that cause shortness of breath and difficulty talking but do not worsen knee symptoms severely or for more than 24 hours. They also provided demographic information and details about their knee OA symptoms.

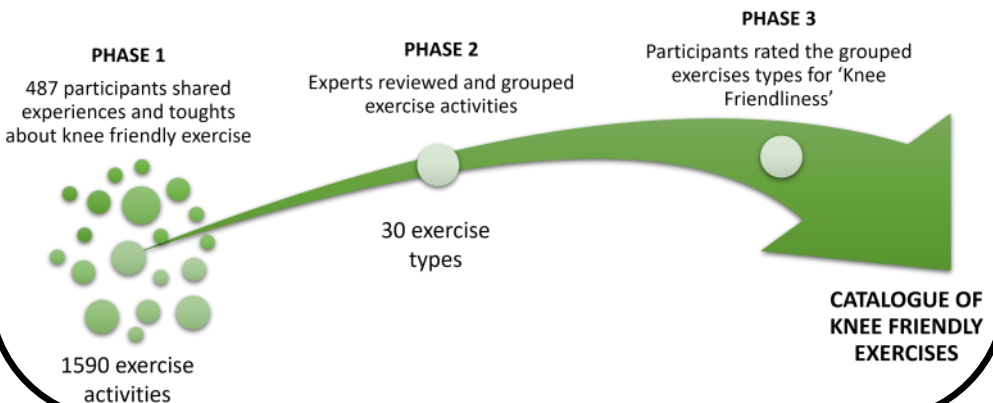
Over 480 people from around the world shared their experiences, giving us a list of 1590 different exercise descriptions.

2. Expert Review

Three exercise and osteoarthritis experts reviewed the exercise activities and grouped similar ones together into broader categories. They also checked how intense each exercise activity is, ensuring they can improve your fitness if done regularly.

3. Rating Knee-Friendliness

Participants were re-invited to review the broader exercise categories. They rated each exercise for "knee friendliness" (yes/no) based on whether they thought it could be done without worsening knee symptoms.



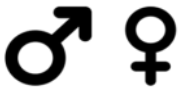
Who participated?

Participants were from Denmark, the Netherlands, Australia, and North America, ensuring a diverse international representation. The participants in our survey were people diagnosed with knee osteoarthritis or met internationally recognized criteria for self-reported knee osteoarthritis .

Here is a summary of their characteristics:



The average age was 68 years ranging from 43 to 97 years.



61% were female. 39% males.



The average duration of knee OA symptoms was 12 years ranging from ½ to 50 years.

PAIN



The average current knee pain level was 4.5 on 0-10 scale (10 being worst). The range was 0 to 10.

What we found

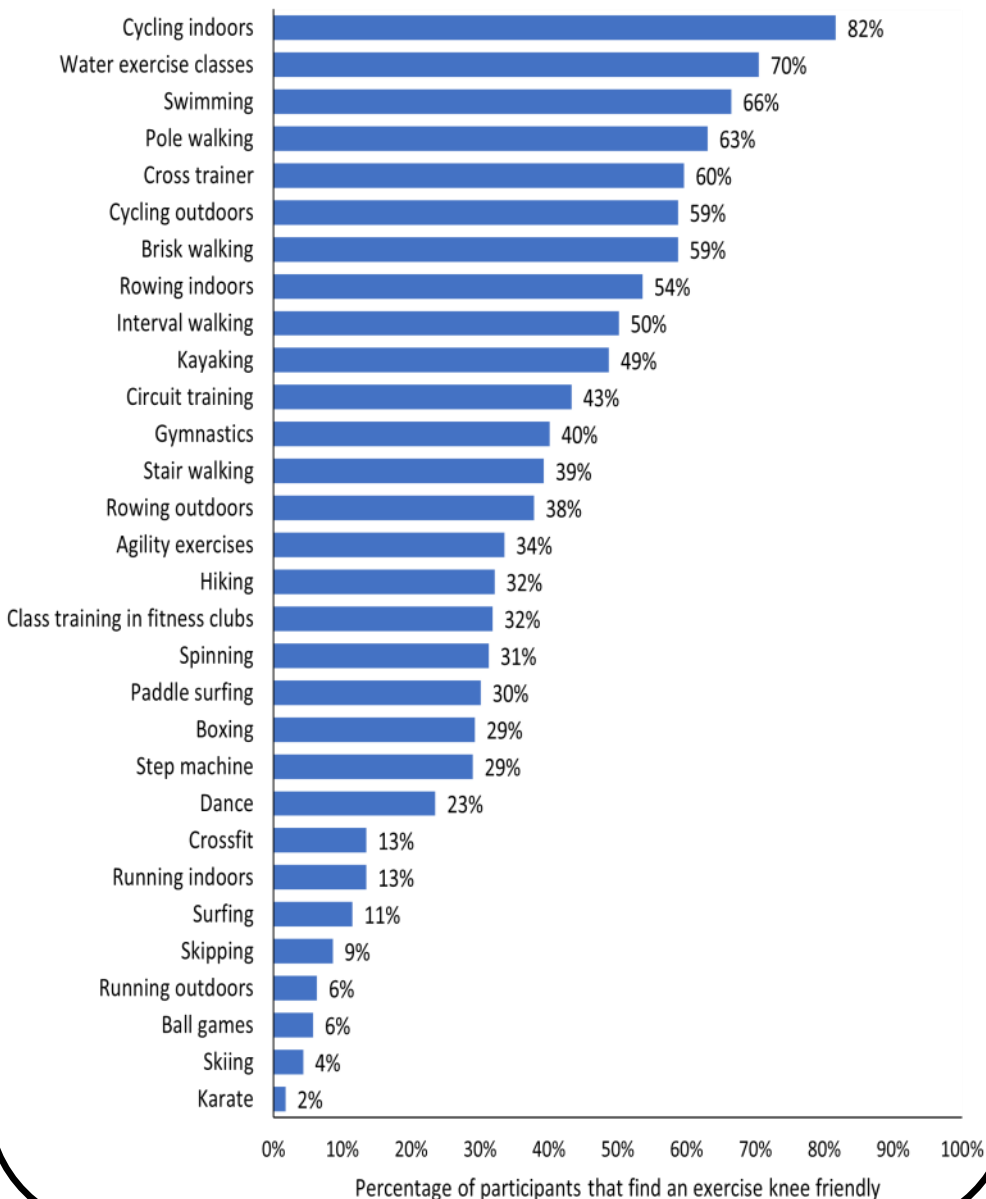
In total we found 30 exercise activities that were considered knee friendly by people living with knee OA.

Not all activities were considered knee friendly by all participants – some are only for the few and others are considered knee friendly by many.

In the figure on the next page there is a ranking of the exercises based on how many people with knee OA that consider them knee friendly. Each of the activities are described in more detail on the following pages.

Knee friendly exercise activities

These are the exercise activities that the participants described and rated for knee friendliness. Each bar shows the percentage of participants that found an exercise activity knee friendly. As an example, 82% of participants found indoor cycling to be knee friendly.



General Considerations When Starting Your Exercise Routine

Start Slow

Begin with exercises that you feel comfortable with and gradually increase the intensity.

Consistency helps building new habits

It may be good to start with shorter duration or fewer sessions per week with a gradual increase over 2-4 weeks. A consistent frequency helps build new habits better than aiming for a certain duration. On the long term you should aim for at least 45 minutes, 2-3 times per week.

Listen to Your Knee

It is okay to feel a little discomfort but stop if you experience severe pain or if a worsening lasts more than a day. Discomfort and slight pain is normal when starting a new exercise regime, but the symptoms should improve during the first 6-8 weeks. If they do not, then you can consider an alternative exercise type—look through the catalogue to see if you can find something that you find interesting.

Be aware that when starting a new exercise habit, your muscles may become sore after the first sessions. The soreness is temporary and reaches its maximum on day 2 after starting a new exercise. This is perfectly normal and should not be a concern.

You should always seek professional assistance or advice from a health care professional if you have doubts or experience knee symptoms that you do not know or if the symptoms are very severe.

Listen to your body and your health professional

Listen to your body to avoid overtraining. "Listen to your body" means paying attention to the physical signals and feedback your body provides during and after exercise. This includes recognizing signs of discomfort, unexpected pain, fatigue, or soreness and adjusting your activity level accordingly to prevent injury or overexertion.

You should consult a medical doctor or health professional if you are unsure if your planned exercise activities are safe for you and your health. Also, see your doctor if you experience illness, dizziness, or other symptoms during or after exercise.

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AGILITY EXERCISES



In agility exercises, a ladder-shaped training tool is used and placed on the ground, after which you can perform a number of different stepping exercises at a high pace. Agility exercise can be done indoor and outdoor.

34% of people with knee osteoarthritis find agility exercises knee friendly

Those that find agility training knee friendly were on average



68 years



63% women

37% men



12 years

PAIN



4 out of 10

Remark from the osteoarthritis experts: Agility training can involve twists and pivots that may cause pain and discomfort for some. If you have such experiences, you may want to choose another activity.

Remark from the exercise experts: Start with a warm-up and gradually increase the volume and intensity. Combine agility training with other knee-friendly high-intensity exercises from the catalogue for a fuller workout.

Progress training by gradually increasing the intensity and volume, allowing recovery between sessions.

BALL GAMES



High-intensity ball games include sports like European football (soccer), tennis, and basketball. The games are played in larger teams, or as doubles or singles. Ball games is a social way to stay active.

6% of people with knee osteoarthritis find ball games knee friendly

Remark from the osteoarthritis experts: High intensity ball games are typically for those in the early stage of their knee osteoarthritis. For many persons the high intensity, can exacerbates symptoms. If so, consider reducing the time spent on ball games.

Remark from the exercise experts: High intensity ball games typically last 45-60-minutes. Aim for 1-2 times per week. Ensure adequate warm-up and cool-down periods to prevent injury and promote recovery.

To progress gradually increase the intensity and duration of play as tolerated.

Those that find circuit training knee friendly were on average



74 years



**70% women
30% men**



9 years

PAIN



4 out of 10

BOXING



In boxing exercises in a gym/club; gloves and sandbags are used. The training is based on boxing techniques and sparring between participants. The training takes place with high intensity.

29% of people with knee osteoarthritis find boxing knee friendly

Remark from the osteoarthritis experts: Boxing with a sandbag or sparring with a participant can involve twists of the knees which for some can cause discomfort. If you have such experience, consider finding an alternative high intensity training form.

Remark from the exercise experts: Alternate between activity and rest to vary the intensity and engage different muscle groups.

Progress training by gradually increasing the intensity and volume, allowing recovery between sessions.

Those that find boxing knee friendly were on average



65 years



67% women

33% men



13 years

PAIN



4 out of 10

BRISK WALKING



Brisk walking can be done indoors and outdoors with a focus on high speed that causes shortness of breath. Brisk walking is a low-impact exercise type that can enhance fitness, and strengthen muscles.

59% of people with knee osteoarthritis find brisk walking knee friendly

Those that find brisk walking knee friendly were on average



68 years



72% women

28% men



12 years

PAIN

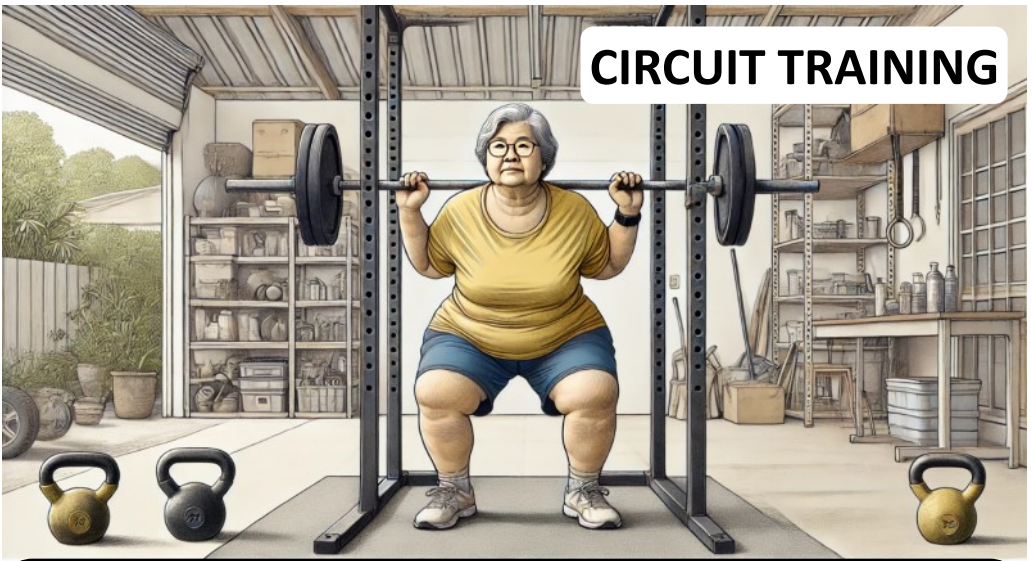


4 out of 10

Remark from the osteoarthritis experts: Brisk walking is typically most comfortable on smooth surfaces of either gravel or soil. Brisk walking can cause increased knee pain. If this is the case, consider using walking sticks.

Remark from the exercise experts: Brisk walking should elevate heart rate and breathing. Aim for at least 30 minutes of brisk walking on most days of the week.

To progress, gradually increase the duration and intensity of your walks over time. Aim to walk longer distances or at a faster pace.



CIRCUIT TRAINING

Circuit training involves selected exercises (on machines, with free weights or body weight) done in a circuit. Depending on the exercises in the circuit, the training can focus on either strength or aerobic fitness.

43% of people with knee osteoarthritis find circuit training knee friendly

Remark from the osteoarthritis experts: When done with high loads or at fast pace, some may experience pain worsening during and after exercise. If a moderation of either load or pace is unhelpful, consider choosing alternative exercise types.

Remark from the exercise experts: Aim for 20-45 minutes and combine strength and aerobic exercises at moderate to high intensities.

To progress in circuit training, gradually increase the intensity, duration, or number of repetitions of exercises as tolerated.

Those that find circuit training knee friendly were on average



68 years



64% women

36% men



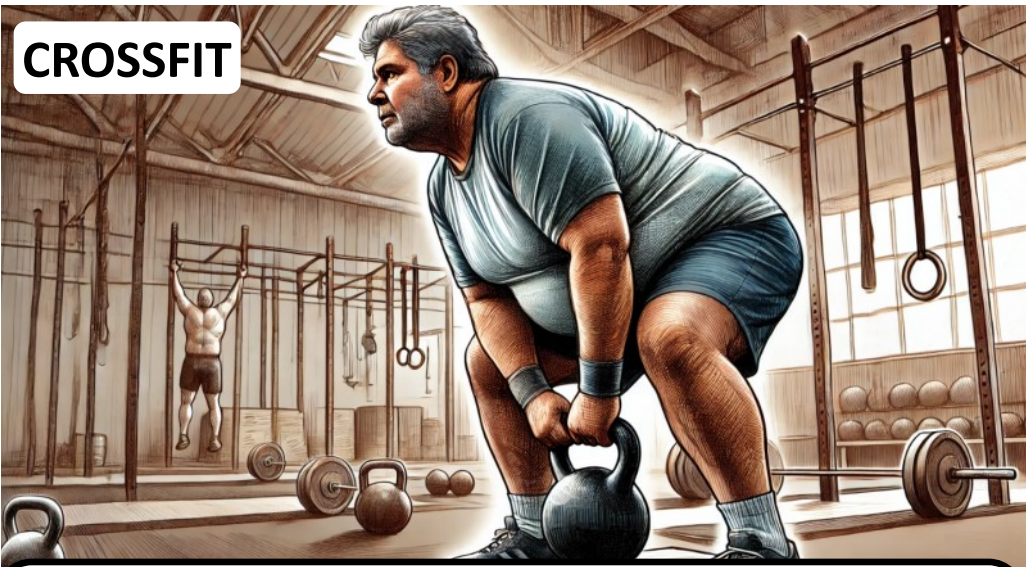
12 years

PAIN



4 out of 10

CROSSFIT



Crossfit combines elements of weightlifting, aerobic training, and body weight exercises. The focus is on functional movements. The exercises vary from day to day. This type of exercise is typically performed in a gym.

13% of people with knee osteoarthritis find crossfit knee friendly

Remark from the osteoarthritis experts: The high intensity of some exercises can cause pain worsening. If so, the exercise should be moderated to accommodate the symptoms. Some exercises involve high knee loads and should be moderated, limited or avoided.

Remark from the exercise experts: CrossFit classes typically last for 45-60 minutes. Aim for 2-3 times weekly to improve fitness, strength, and stability.

To progress, gradually increase the intensity and frequency over time.

Those that find crossfit knee friendly were on average



68 years



**72% women
28% men**



11 years

PAIN



4 out of 10



CROSS TRAINER

The cross trainer, also known as an elliptical machine, is a fitness machine that simulates walking, running and stair climbing without excessive knee joint load. Both upper and lower body muscles are engaged making the cross trainer effective for cardiovascular conditioning.

60% of people with knee osteoarthritis find a cross trainer knee friendly

Those that find cross training knee friendly were on average



68 years



66% women

34% men



12 years

PAIN



5 out of 10

Remark from the osteoarthritis experts:

The cross trainer is a low load cardiovascular conditioning equipment and is most likely tolerable by many with knee osteoarthritis. The cross trainer is a low-impact exercise suitable for most people with knee osteoarthritis.

Remark from the exercise experts:

Cross trainer workouts should last 20-60 minutes. Resistance and speed can be adjusted to control intensity levels. Aim for 2-3 workouts per week, focusing on moderate to high intensity.

To progress gradually increase the resistance, speed, and duration over time.

CYCLING INDOORS



Cycling on a stationary bike/exercise bike targets the muscles of the lower body and is a great way to improve cardiovascular fitness without excessive knee joint load.

82% of people with knee osteoarthritis find indoor biking knee friendly

Remark from the osteoarthritis experts: Indoor cycling is the most commonly recommended exercise form for patients with knee osteoarthritis as almost all will experience minimal symptom worsening.

Remark from the exercise experts: Indoor cycling sessions should last 20-60 minutes and can include interval-based exercise program, aiming for series of high intensity followed by periods of low-moderate intensity. Aim for 2-3 times weekly sessions.

To progress, gradually increase speed, resistance, time spent in high intensity, and duration over time.

Those that find cycling indoors knee friendly were on average



68 years



66% women

34% men



12 years

PAIN



4 out of 10



CYCLING OUTDOORS

Cycling outdoors can be cycling as transportation, road racing, mountain biking and cycling in hilly terrain. Outdoor cycling can be flexible by choosing flat terrain or hills.

59% of people with knee osteoarthritis find outdoor cycling knee friendly

Those that find cycling outdoors knee friendly were on average



68 years



**60% women
40% men**



11 years

PAIN



4 out of 10

Remark from the osteoarthritis experts:

Low resistance (with higher round per minute) is often more amenable when having knee osteoarthritis than high resistance (and low round per minute).

Remark from the exercise experts:

Outdoor cycling should last for 20-60 minutes, and incorporate hilly terrain to elevate heart rate and challenge muscles. It can be integrated into daily routines as transportation.

To progress, gradually increase the duration and intensity of your rides as your fitness improves.

DANCE



Dancing encompasses various styles, such as tango, line dance, disco, standard dance, folk, cha-cha-cha, rumba, zumba etc. Regular dancing is a joyful and social way to stay active.

23% of people with knee osteoarthritis find dancing knee friendly

Remark from the osteoarthritis experts: Some dance-styles involve twists and turns which can provoke knee symptoms. Choose the style that provoke knee symptoms the least.

Remark from the exercise experts: Dance classes typically last 30-60 minutes. Most dance styles performed at a recreational level are considered moderate intensity. Consider supplementing dance with a high-intensity activity. Aim for 2-3 weekly dance classes.

To progress dance classes, gradually increase the intensity and complexity of dance routines overtime.

Those that find dance knee friendly were on average



69 years



**72% women
28% men**



12 years

PAIN



5 out of 10



Fitness class training is performed with an instructor that guides a series of exercises that various depending on the theme of the class. Class training offers diverse options, including strength-, pilates-, and aerobic classes.

32% of people with knee osteoarthritis find class training in fitness clubs knee friendly

Those that find fitness class knee friendly were on average



68 years



72% women

28% men



11 years

PAIN



4 out of 10

Remark from the osteoarthritis experts:

Class training is very variable and some classes may might provoke the knee pain. Most instructors can provide an alternative exercise if relevant or guide you to another type of class.

Remark from the exercise experts:

Class training typically last for 45-60 minutes. Aim for 2-3 sessions weekly to improve fitness.

Progression is typically managed by the instructor. Some types of classes have several levels depending your need, capacity and experience.

GYMNASTICS



Gymnastics focus on strength, coordination, explosiveness, flexibility, and balance. Two main styles exist. Rhythmic and Artistic gymnastics. Gymnastics include a variety of bodyweight exercises.

40% of people with knee osteoarthritis find gymnastics knee friendly

Those that find gymnastics knee friendly were on average



69 years



**71% women
29% men**



11 years

PAIN

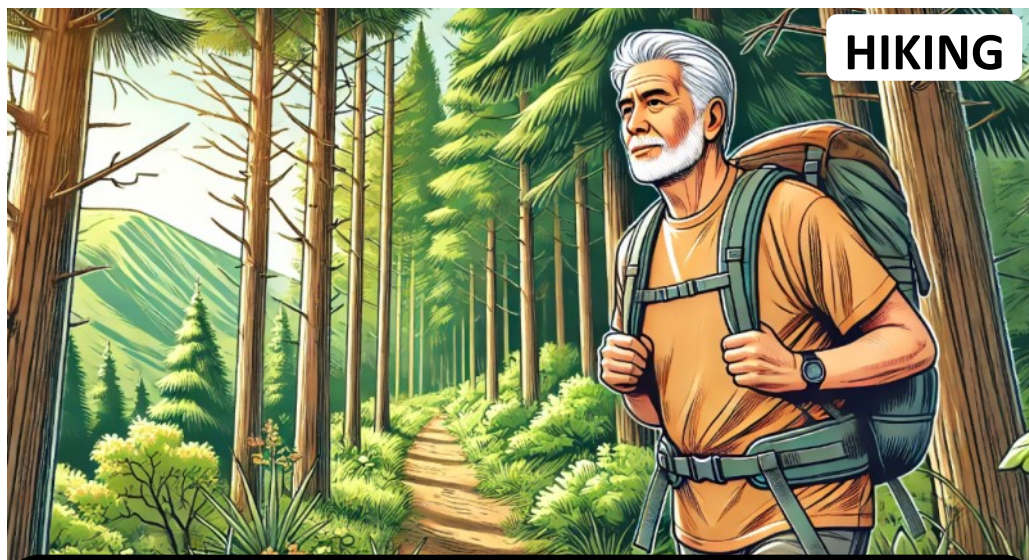


4 out of 10

Remark from the osteoarthritis experts: Gymnastics is a great way to improve joint stability, however gymnastics that involves flips, excessive jumping and twist may provoke knee symptoms.

Remark from the exercise experts: Gymnastic workouts should last 30-60 minutes. Aim for 2-3 weekly workouts focusing on using large muscle groups.

To progress, gradually increase the intensity and frequency over time while ensuring exercises are adapted to accommodate any knee discomfort.



Hiking is walking over longer distances and can be done in different terrain (mountains, beach, city, etc.) at various intensities, e.g. flat terrain or climbs in steep trails. Hiking is an excellent way to enjoy the outdoors.

32% of people with knee osteoarthritis find hiking knee friendly

Those that find hiking knee friendly were on average



67 years



**70% women
30% men**



10 years

PAIN



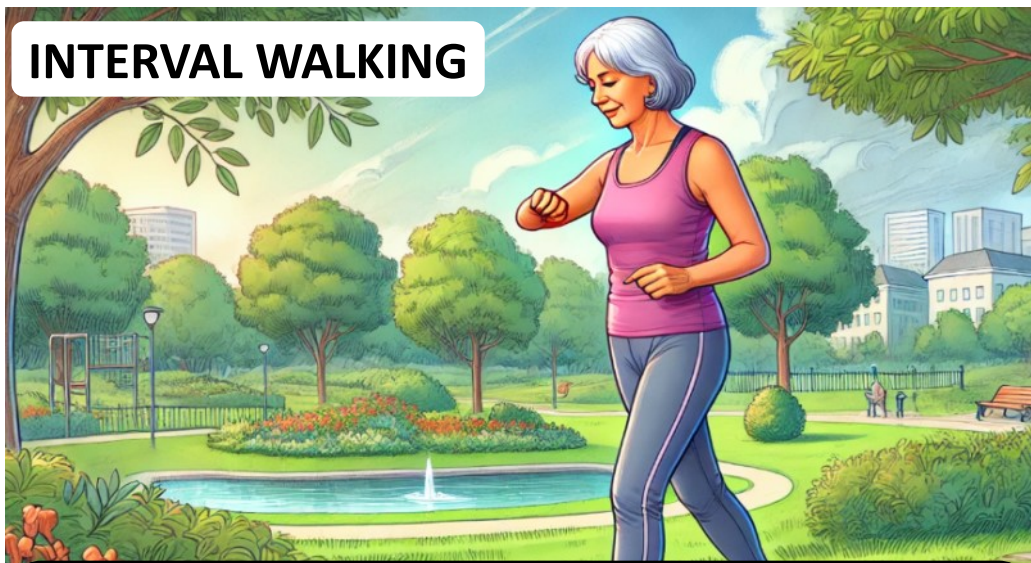
4 out of 10

Remark from the osteoarthritis experts: Consider walking sticks, as many with knee osteoarthritis to reduce stress on the knee. Rougher trails can worsen knee symptoms.

Remark from the exercise experts: Hiking should be performed in a pace that elevates heart rate and breathing. Aim for 30–60-minute hikes, 2-3 times per week. Consider using hiking poles for additional stability and balance.

Start with shorter, easier hikes and gradually increase the duration and difficulty as your fitness improves.

INTERVAL WALKING



Walking with alternating speeds from fast to slow. When walking fast, you must walk at a pace that makes you clearly short of breath. Interval walking involves alternating between periods of moderate and brisk walking.

50% of people with knee osteoarthritis find interval walking knee friendly

Remark from the osteoarthritis experts: When walking fast remember to activate your muscles in your body to improve balance. Focus on straightening the back, use your buttocks when you push-off and take short rather than long steps.

Remark from the exercise experts: Interval walking should be performed with periods of moderate-to high intensity. Aim for sessions of 20-30 minutes, 3-4 times per week.

To progress, gradually increase the duration and intensity of the brisk intervals as your fitness improves.

Those that find interval walking knee friendly were on average



68 years



69% women

31% men



12 years

PAIN



4 out of 10



Karate is a martial art that combines physical fitness and expression. The training mainly consists of punches, kicks and blocks at high speed.

2% of people with knee osteoarthritis find karate knee friendly

Remark from the osteoarthritis experts: Karate is a great way to strengthening the knee. Some may experience symptom worsening. Moderate to focus on controlled movements, avoid jumps, or consider alternative exercise forms.

Remark from the exercise experts: Karate should be performed at moderate-to high intensity Aim for 30–45 -minute sessions, 2-3 times per week. Focus on proper technique, modifying movements to avoid knee strain.

To progress, gradually increase the intensity and complexity as your strength and fitness improves.

Those that find karate knee friendly were on average



70 years



**83% women
17% men**



13 years

PAIN



3 out of 10

KAYAKING



Kayaking can be performed on various bodies of water, including rivers, lakes, and oceans. Kayaking primarily works the upper body but also engages the core and lower body for stability. Kayaking is a low impact exercise.

49% of people with knee osteoarthritis find kayaking knee friendly

Those that find kayaking knee friendly were on average



67 years



71% women

29% men



12 years

PAIN



5 out of 10

Remark from the osteoarthritis experts: Kayaking form that provides cardiovascular benefits and strengthens the upper body muscles and core. It is performed seated and therefore has a minimal impact on the knee symptoms.

Remark from the exercise experts: Kayaking should be performed with moderate to high intensity that could be organized intervals. Aim for 30-60 minutes, 2-3 times per week.

To progress kayaking, start with shorter sessions and gradually increase the duration as your technique and fitness improves.



PADDLE SURFING

Paddle surfing is a water sport on a large surfboard that is propelled forward using a paddle. Paddleboarding can be done standing or sitting. Paddleboarding improves balance, strength, and cardiovascular fitness.

30% of people with knee osteoarthritis find paddle surfing knee friendly

Those that find paddle surfing knee friendly were on average



66 years



**65% women
35% men**



12 years

PAIN



4 out of 10

Remark from the osteoarthritis experts: Paddle surfing is a low-impact exercise that challenges your balance and stability and is therefore great if you have knee osteoarthritis.

Remark from the exercise experts: Paddle surfing requires stability and coordination, and engages multiple muscle groups. Aim for 30–60-minute sessions, 2–3 times per week.

To progress, gradually progress speed or duration as your confidence and strength improve.

POLE WALKING



Pole walking (Nordic walking), is walking using two poles as an aid. The poles provide an increased training effect, as the arms and upper body are activated during the walk. The poles also improves balance.

63% of people with knee osteoarthritis find pole walking knee friendly

Remark from the osteoarthritis experts: For many with knee osteoarthritis, this type of walking is greatly beneficial as it typically allows the individual to walk longer or/and faster with less knee symptoms.

Remark from the exercise experts: Pole walking should be performed in moderate- to high intensity. Aim for 20–60-minute walking sessions, 2-3 times per week.

To progress, start at a comfortable pace and gradually increase the intensity and duration of your walks.

Those that find pole walking knee friendly were on average



67 years



76% women

24% men

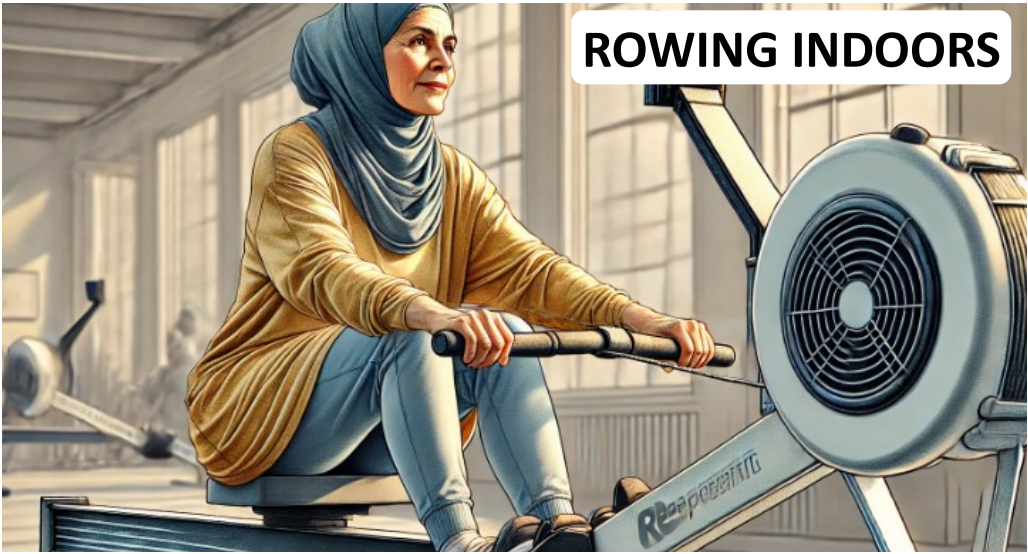


12 years

PAIN



4 out of 10



ROWING INDOORS

Indoor rowing is done on a machine. A rowing machine is a low-impact exercise that works both the upper and lower body.

64% of people with knee osteoarthritis find indoor rowing knee friendly

Those that find rowing indoors knee friendly were on average



68 years



**67% women
33% men**



13 years

PAIN



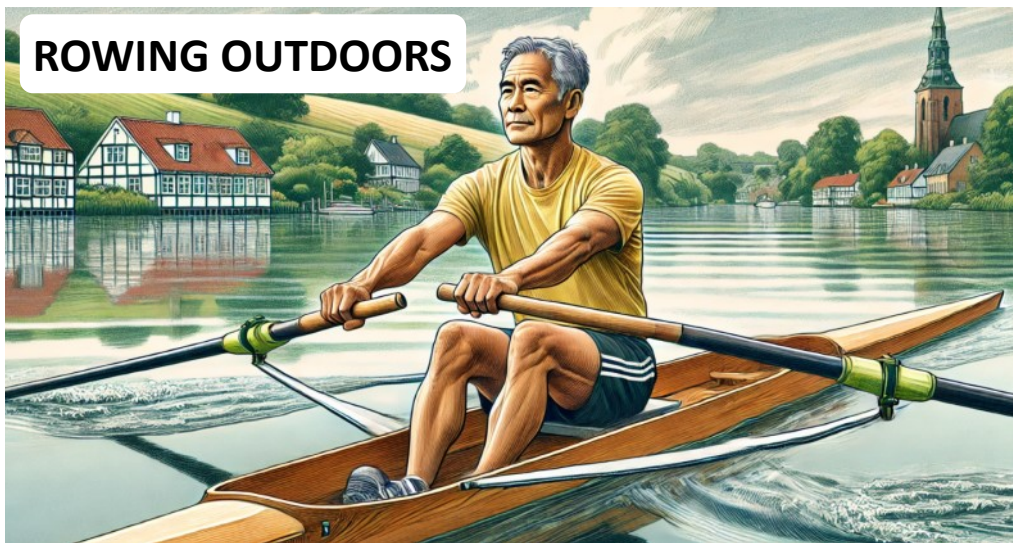
5 out of 10

Remark from the osteoarthritis experts: Rowing is a low impact exercise. Avoid full knee flexion and extension during the exercise as these may cause symptom worsening.

Remark from the exercise experts: Rowing indoors should be performed at moderate-to high intensity. Aim for 20 –30-minute sessions, 2-3 times per week. Use proper technique.

To progress, start with a low resistance and gradually increase as your fitness improves. Intervals of high-and low intensity can be included.

ROWING OUTDOORS



Rowing outdoors can be done by one or more people on the sea or a lake. Rowing on water adds the challenge of balancing on a boat. It can provide a peaceful, meditative experience while offering a full-body workout.

38% of people with knee osteoarthritis find outdoor rowing knee friendly

Remark from the osteoarthritis experts: Rowing is a low impact exercise. Avoid full knee flexion and extension during the exercise as these may cause symptom worsening.

Remark from the exercise experts: Rowing outdoors should be performed at moderate to high intensity. Aim for sessions lasting 20-30 minutes, 2-3 times per week. Maintain a steady rowing rhythm and use proper technique. Start with short distances and low intensity, gradually increasing as your technique improve. Consider incorporating intervals.

Those that find rowing outdoors knee friendly were on average



67 years



68% women

33% men



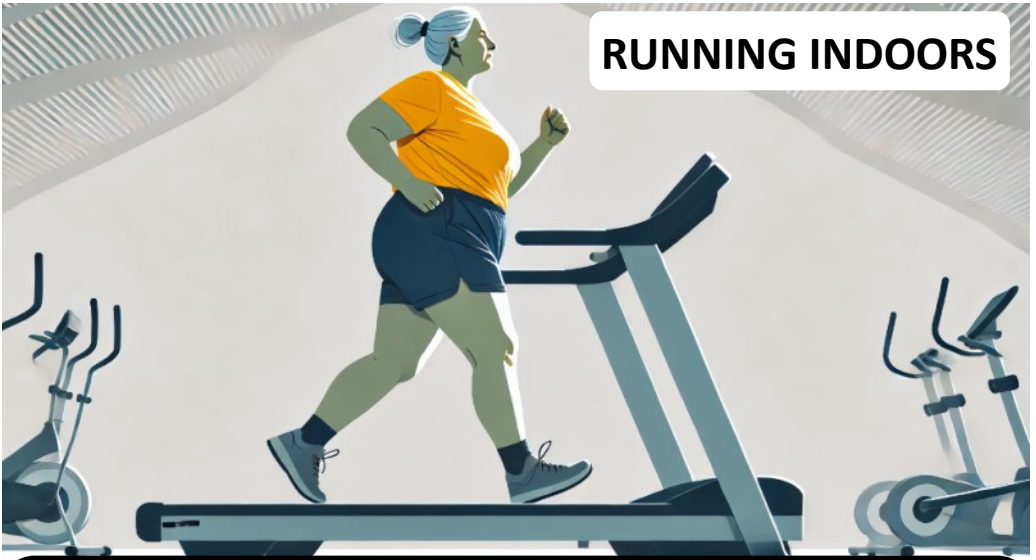
12 years

PAIN



5 out of 10

RUNNING INDOORS



Running indoors is done on a treadmill. Treadmill running allows for controlled speed, and inclination. Running is a great way to improve cardiovascular fitness.

13% of people with knee osteoarthritis find indoor running knee friendly

Those that find running indoors knee friendly were on average

AGE 70 years

62% women
38% men

SYMPTOM DURATION 11 years

PAIN 4 out of 10

Remark from the osteoarthritis experts: If you are an avid runner but start experiencing symptom exacerbations, treadmill running is a great alternative as it often is experienced as “easier” than outdoor running for the knee joint as the surface is smooth.

Remark from the exercise experts: Running can be demanding and should be initiated with alternating between walking and running. Aim for 20–30-minute sessions, 2–3 times per week. To progress, start slow and gradually increase speed, inclination, or duration as tolerated.

RUNNING OUTDOORS



Running outdoors can be done in the city, in parks, or in the countryside. It can be demanding and is great way to improve cardiovascular fitness.

6% of people with knee osteoarthritis find outdoor running knee friendly

Remark from the osteoarthritis experts: Running outdoors are typically for early stage knee osteoarthritis. Avoid running on hard surfaces as this can have a negative impact on the knee symptoms than softer smooth surfaces (gravel or dirt).

Remark from the exercise experts: Running can be demanding and should be initiated with alternating between walking and running. Aim for 20–30-minute sessions, 2-3 times per week.

To progress, start slow gradually increase speed or duration as tolerated.

Those that find running outdoors knee friendly were on average



72 years



**68% women
32% men**



12 years

PAIN



4 out of 10



SKIING

Skiing includes cross-country skiing, alpine skiing and snowboarding. Skiing provides a full-body workout and can enhance overall fitness.

4% of people with knee osteoarthritis find skiing knee friendly

Those that find skiing knee friendly were on average



68 years



53% women

47% men



12 years

PAIN



4 out of 10

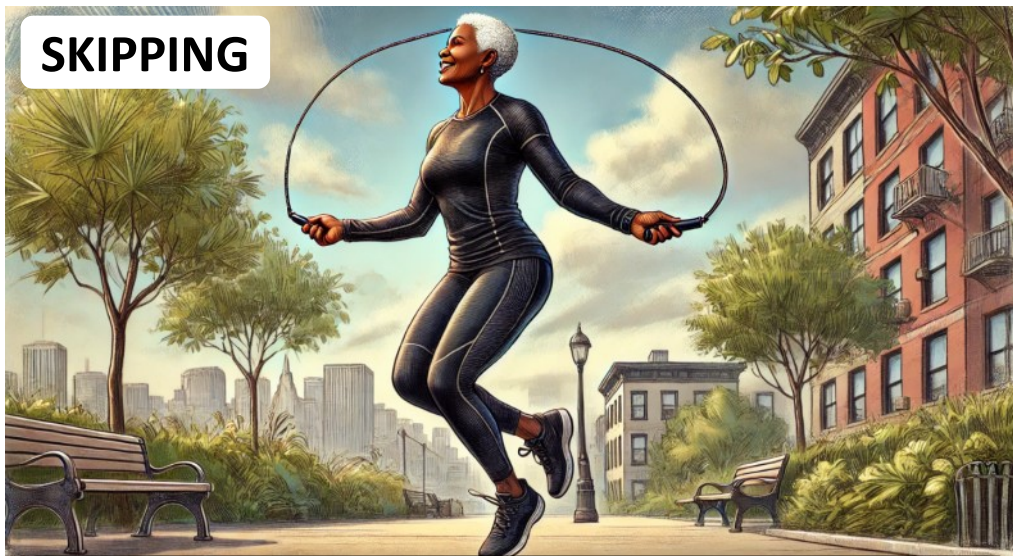
Remark from the osteoarthritis experts: Cross-country skiing is a low impact activity and is most suitable for persons with knee osteoarthritis.

Downhill skiing and snowboarding have high risks of knee injuries.

Remark from the exercise experts: Skiing can be a demanding sport and should be performed with instruction if you have limited experience.

To progress, gradually increase intensity and duration as tolerated.

SKIPPING



Skipping involves jumping or running while a skipping rope is swung with the arms. Skipping can be adapted for knee OA by using a softer surface and focusing on low-impact jumps.

9% of people with knee osteoarthritis find skipping knee friendly

Remark from the osteoarthritis experts: Skipping involves repetitive jumping that can worsen knee symptoms. This sport is considered suitable for only a few people with knee osteoarthritis.

Remark from the exercise experts: Skipping should be performed in moderate-to high intensity and with periods of rest or other exercise activities. Aim for 10–20-minute sessions, 2-3 times per week.

To progress, gradually increase duration or speed as tolerated

Those that find skipping knee friendly were on average



68 years



**67% women
33% men**



13 years

PAIN



4 out of 10



SPINNING

Spinning is indoor cycling in a class or individually on stationary exercise bikes. Typically lead by an instructor who has planned a program that is characterized by high-tempo intervals. Spinning improves cardiovascular fitness, leg strength, and joint flexibility.

31% of people with knee osteoarthritis find spinning knee friendly

Those that find spinning knee friendly were on average



68 years



**58% women
42% men**



11 years

PAIN



4 out of 10

Remark from the osteoarthritis experts: Spinning is a low impact exercise and suitable for most people with knee osteoarthritis. In spinning the foot is locked to pedal. This can cause symptom worsening for some. Consider doing spinning without cycling shoes.

Remark from the exercise experts: Spinning should be performed at moderate-to high intensity. Aim for 45-60-minute sessions, 2-3 times per week.

To progress, start at a low resistance and gradually increase as your fitness improves.

STAIR WALKING



Stair training involves training on stairs outdoors or indoors for example in stairwells. Stair training can be adapted for knee OA by focusing on controlled movements and using handrails for support.

39% of people with knee osteoarthritis find stair walking knee friendly

Remark from the osteoarthritis experts: Walking on stairs is great to strength the muscles around the knee. However, for some, stair walking can provoke symptoms, especially when walking down. Consider to focus on walking up.

Remark from the exercise experts: Aim for 10-30-minute sessions as frequently as possible.

To progress, start slowly and gradually increase the numbers of stairs, speed or duration as your strength and fitness improves. Incorporate intervals of walking or resting between sets.

Those that find stair walking knee friendly were on average



70 years



69% women

31% men



10 years

PAIN



5 out of 10



STEP MACHINE

Step machine exercises is performed on a step machine and is similar to climbing stairs. The step machine is a low-impact exercise that can be adjusted to accommodate knee osteoarthritis.

29% of people with knee osteoarthritis find a step machine knee friendly

Those that find step machine knee friendly were on average



68 years



73% women

27% men



11 years

PAIN



5 out of 10

Remark from the osteoarthritis experts:

As stair walking on a step machine only involves walking up the stairs, it is typically manageable for the more people with knee pain than walking on regular stairs.

Remark from the exercise experts:

Step machine workouts should be performed with moderate-to high intensity. Aim for 20-45-minute sessions, 2-3 times per week.

To progress, start at a low speed and gradually increase as your fitness improves.

SURFING



Surfing takes place by standing on a surfboard in waves. Surfing also involves swimming. Surfing provides a full-body workout and can enhance overall fitness while offering a fun and engaging way to stay active.

11% of people with knee osteoarthritis find surfing knee friendly

Remark from the osteoarthritis experts: Surfing is a low impact activity but can include full flexion of the knee that may provoke knee symptoms.

Remark from the exercise experts: Surfing can be a demanding sport and requires strength, fitness, and balance. Aim for 30–60-minute sessions, 2-3 times per week.

To progress, gradually progress duration and to increasing wave sizes as your skills improve.

Those that find surfing knee friendly were on average



68 years



62% women

38% men



9 years

PAIN



4 out of 10

SWIMMING



Swimming includes different styles such as breaststroke, crawl, back crawl, butterfly, etc. Swimming is an excellent low-impact exercise that provides a full-body workout.

66% of people with knee osteoarthritis find swimming knee friendly

Those that find swimming knee friendly were on average



68 years



68% women

32% men



12 years

PAIN



5 out of 10

Remark from the osteoarthritis experts: Swimming is allow impact exercise. Some, may experience that the leg kicks can cause symptom worsening. If this is the case, consider another style of swimming or use a floating device between your legs.

Remark from the exercise experts: Swimming should be performed in moderate-to high intensity. Aim for 20 –45-minute sessions, 2-3 times per week.

To progress swimming, gradually increase intensity and duration and consider incorporate intervals of different styles.

WATER EXERCISE CLASSES



Water exercise class ("Aqua fit" or "water aerobics") requires fitness, coordination and strength. The buoyancy of the water reduces joint impact while providing resistance for a full-body workout.

70% of people with knee osteoarthritis find water exercise classes knee friendly

Remark from the osteoarthritis experts: As the aerobics class is placed in water, many people with knee osteoarthritis consider this a great type of exercise. Some classes are performed in a hot pool which can further relieve knee symptoms.

Remark from the exercise experts: Water exercises are typically performed with low-to moderate intensity. Aim for 45–60-minute classes, 2-3 times per week.

To progress water exercises, gradually increase duration, intensity, and frequency.

Those that find water exercise knee friendly were on average



68 years



**73% women
27% men**



12 years

PAIN



5 out of 10

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ACKNOWLEDGEMENTS

We acknowledge PhD student Tobias Hørlück for his contributions to development of the exercise illustrations and technical assistance.

Images in this work were generated using OpenAI's ChatGPT image generation tool. The characters depicted in this work are fictitious. Any resemblance to actual persons is purely coincidental.

This work was supported by a grant from Sygeforsikringen “danmark”’s Sundhedsdonationer (grant number 2021-0025).



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CATALOGUE OF



KNEE FRIENDLY EXERCISE

BY PATIENTS – FOR PATIENTS