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Session Objectives

- Understand the benefits of exercise for this population group.
- Recognize the associated guidelines for OA and RA.
- Applying the Exercise Prescription for OA and RA clients.

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Specific Benefits of Exercise

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New UK Guidelines (Sept 2019)

Adults (19 to 64 years)

- For good physical and mental health, adults should aim to be physically active every day. Any activity is better than none, and more is better still.
- Adults should do activities to develop or maintain strength in the major muscle groups. These could include heavy gardening, carrying heavy shopping, or resistance exercise. Muscle strengthening activities should be done on at least two days a week, but any strengthening activity is better than none.
- Adults should accumulate at least 150 minutes (2 1/2 hours) of moderate intensity activity (such as brisk walking or cycling); or 75 minutes of vigorous intensity activity (such as running); or even shorter durations of very vigorous intensity activity (such as sprinting or stair climbing); or a combination of moderate, vigorous and very vigorous intensity activity.

(UK Chief Medical Officers' Physical Activity Guidelines, 2019)

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(UK Chief Medical Officers' Physical Activity Guidelines, 2019)

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New UK Guidelines (Sept 2019)

Older Adults (65 years and over)

- Older adults should participate in daily physical activity to gain health benefits, including maintenance of good physical and mental health, wellbeing, and social functioning. Some physical activity is better than none: even light activity brings some health benefits compared to being sedentary, while more daily physical activity provides greater health and social benefits.
- Older adults should maintain or improve their physical function by undertaking activities aimed at improving or maintaining muscle strength, balance and flexibility on at least two days a week. These could be combined with sessions involving moderate aerobic activity or could be additional sessions aimed specifically at these components of fitness.
- Each week older adults should aim to accumulate 150 minutes (two and a half hours) of moderate intensity aerobic activity, building up gradually from current levels. Those who are already regularly active can achieve these benefits through 75 minutes of vigorous intensity activity, or a combination of moderate and vigorous activity, to achieve greater benefits. Weight-bearing activities which create an impact through the body help to maintain bone health.

(UK Chief Medical Officers' Physical Activity Guidelines, 2019)

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Specific Physical Activity Guidelines

NHS (OA):

- A combination of exercises to strengthen the muscles that support joints and exercises that improve joint function and general fitness.
achieve UK government guidelines.
- Emphasise good posture.

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Specific Physical Activity Guidelines

NHS (RA):

- Important for the patient to find a balance between rest and exercise.
- Increase the amount of exercise performed gradually.
- If a particular activity always causes a flare-up, it is best to avoid it and find an alternative.
- The NHS recommend low-impact activities that put less strain on joints, such as swimming, cycling, walking and aqua aerobics.

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Specific Physical Activity Guidelines

Versus Arthritis:

- Build up gradually
- Get fit for sport
- Get the right equipment, including footwear
- Learn the correct body alignment and techniques
- Warm up and warm down
- Fuel your body correctly
- 'Listen' to your body and if you experience pain reduce the intensity of workouts, change how you are exercising and seek medical advice if the pain doesn't go away.

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Specific Physical Activity Guidelines

Versus Arthritis:

- Low-impact exercise is recommended for people with all types of arthritis.
- Good exercises if you have arthritis include:

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Specific Physical Activity Guidelines

Principle	Aerobic	Resistance	Flexibility
Frequency	3-5 days per week	2-3 days per week	Daily
Intensity	Moderate to Vigorous	60-80% 1-RM. Initial intensity should be lower (i.e., 50-60% 1-RM) for those unaccustomed to resistance training	Move through ROM feeling tightness/stretch without pain. Progress ROM of each exercise only when there is very little or no pain
Time	150 min per week of moderate intensity, 75 mins of vigorous intensity, or an equivalent combination of the two	Use healthy adult values and adjust accordingly (i.e., 8-12 repetitions for 2-4 sets), include all major muscle groups	Up to 10 repetitions for dynamic movements, hold static stretches for 10-30 seconds
Type	Activities with low joint stress, such as walking, cycling, swimming, or aquatic exercise	Machine or free weights. Body weight exercise might also be appropriate for select individuals	A combination of dynamic and static stretching focused on all major joints

ACSM (2020):

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WRIGHT Foundation Guidelines

- See exercise prescription framework

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Exercise Prescription (OA & RA)

- Remember...
 - Exercising the joints is essential to maintain their function.
 - Joints do not wear out with over-use from general exercise types and ADLs.
- RA-specific:
 - During an acute flare-up, the client must REST from active exercise, but maintain joint range of movement.
 - In remission, keep the muscles strong and to maintain a full range of joint movements.
 - Exercises and activities should all be low impact.
 - Appropriate footwear must be considered.
 - Previously damaged or involved joints should be protected.
 - Rest is important, especially when joints are inflamed.

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Modalities of Activity and Exercise

- Non-weight bearing, partial weight bearing, low impact activities are preferable.
- Water temperature for swimming/aqua aerobics should be comfortable.
- Resistance training (RT) has been shown to be effective in reducing the
- Cachexia loss of muscle mass and associated strength, with an increase in fat mass. Resistance training has been shown to help reverse some of this loss.
- High-intensity training is not advised when joint damage is advanced.

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Modalities of Activity and Exercise

- Poor grip strength and hand/wrist pain may reduce the suitability of certain gym exercise, such as a rowing ergometer, but the use of gloves may be beneficial.
- Emphasising the importance of daily mobilising is essential.
- Tai chi has been shown to improve lower extremity strength, flexibility, and cardiovascular fitness, decreased pain and improved sense of well-being.
- If specific exercises exacerbate joint pain, alternative exercises that work the same muscle groups and energy systems should be substituted.

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Group Exercise Presentation Task

Fast Fact Sheets Understanding Arthritis > Link RA Fact Sheet > Link	On Course Tasks Day 1 Group Task > Link Day 23 Group Task Profile/Link Powerpoint Template > Link Calculate Intensity Task >	Quizzes Day 3 Quiz Link >	Other Resources RA 2018 Classification Criteria
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You have **60 minutes** to devise a program within your groups

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