Assignment Title: Management of Osteoarthritis in the United Kingdom: Diagnosis, Assessment, Treatment, Prevention, and Person-Centred Care

Name:

Number:

Module Code: LCHS7003

Module Title: Community Care and Management of Longer-term Conditions

Programme: MSc Public Health and Social Care in Practice

Lecturer Name: Muhammad Khan

Introduction to Osteoarthritis

Definition

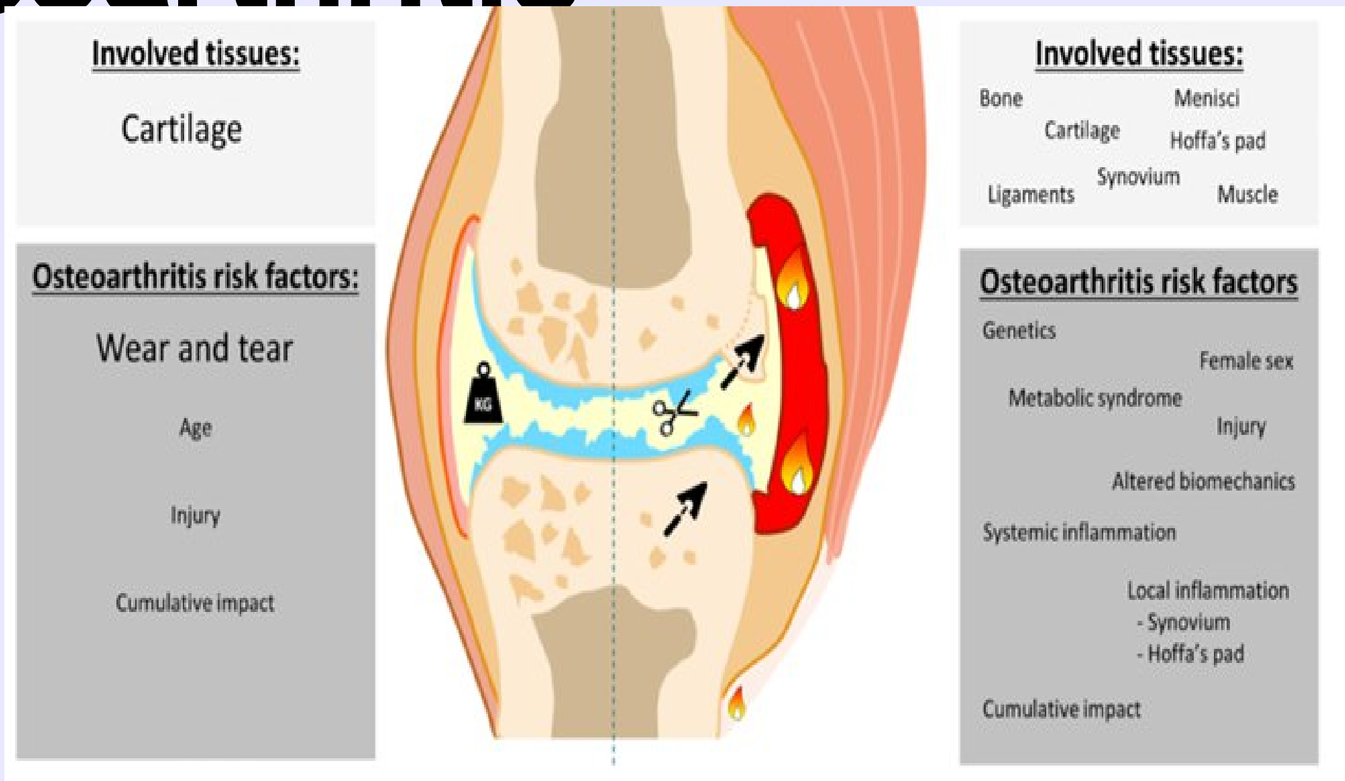
Osteoarthritis is a chronic joint disorder associated with structural joint changes and degeneration of cartilage (Ouyang et al., 2023).

Symptoms

The primary symptoms are the most persistent joint pain, stiffness and decreased mobility occur in the weight-bearing joints (Coaccioli et al., 2022). The secondary symptoms are the joint swelling, crepitus, muscle weakness and decreased physical function.

Aetiology

Osteoarthritis is caused mainly by cartilage aging and by biomechanical stress (Chen et al., 2023). Osteoarthritis is an increased risk in obese people and those with a history of joint injury (van den Bosch et al., 2024).



(Source: van den Bosch et al., 2024)

Prevalence of Osteoarthritis in the UK and Worldwide

UK

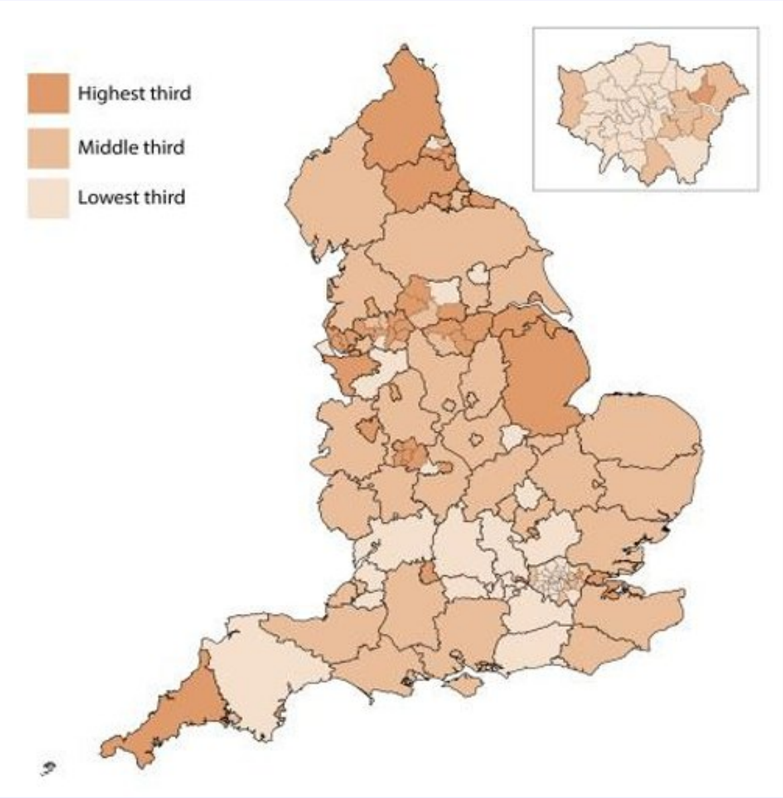
1

Over 9 million people in the UK suffer from osteoarthritis (UHDB UK, 2026).
About 18% of adults over 45 years old struggle from knee osteoarthritis (Arthritis UK, 2026).
About 8.5 million general practice consultations are for osteoarthritis each year (Practicenurse UK, 2026).

Worldwide

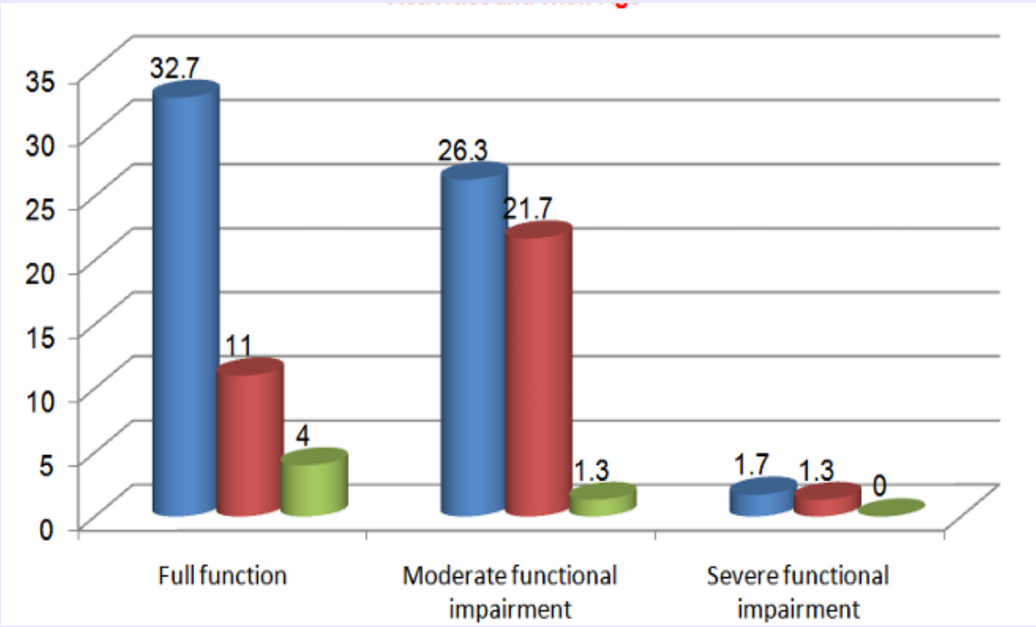
2

About 528 million people globally had osteoarthritis (WHO, 2026).
The number of cases of all types of osteoarthritis has risen by about 113% globally from 1990 to 2020 (WHO, 2026).
Around 73% of the world's population aged over 55 years suffers from osteoarthritis with the prediction of 78 million people by 2040 (Oaaction, 2026).



(Source: Arthritis UK, 2026)

Economic and Social Burden



(Source: Hassan et al., 2023)

Economic Burden

In the UK, the total financial burden of osteoarthritis is estimated to be £10.2 billion per year (Committees Parliament UK, 2026). Long-term treatment leads to greater primary care, specialist and joint replacement surgery needs (Martina et al., 2022). Affected adults have reduced working capacity which leads to sickness absence and

Social Burden

Osteoarthritis causes a loss of independence and a decrease in participation in daily and social activities (Hassan et al., 2023). About 31% of adults lack daily required physical activities (WHO, 2026). Chronic pain has a negative impact on mental wellbeing and family relationships.

Diagnosis and Initial Assessment

Indicator	Period	Kens & Chel		Region	England	England		
		Count	Value	Value	Value	Worst	Range	Best
Excess Weight in Adults	2012	192	45.9%	57.3%	63.8%	74.4%		45.9%
Percentage of physically active and inactive adults - active adults	2013	266	55.8%	55.5%	55.6%	43.4%		66.3%
Percentage of active and inactive adults - inactive adults	2013	175	29.7%	28.4%	28.9%	39.2%		16.3%
Smoking Prevalence	2012	-	17.5%	18.0%	19.5%	29.8%		12.1%
Smoking prevalence - routine & manual	2012	-	25.6%	25.7%	29.7%	44.3%		14.2%

(Source: Arthritis UK, 2026)

Diagnosis

Assess for osteoarthritis according to the NICE guidelines, clinical history and physical examination.

Evaluate pain, stiffness, function and duration of symptoms at time of consultation (Wojcieszek et al., 2022).

Imaging only there is some ambiguity in the clinical findings or alternative diagnosis is considered.

Initial Assessment

Use pain and functional assessment tools validated for pain to assess its severity (Adnani et al., 2022).

Evaluate mobility, strength in muscles, joint alignment and range of movement.

Recognise co-morbidities, lifestyle factors and patient goals to aid with personalised care planning.

Management Following UK Guidance

(Source: Self-developed)

NICE Guideline

Offer person centred care in partnership with shared decision-making and informed decisions around treatment options (NICE UK, 2026).

Prescribe therapeutic exercise as the initial treatment for all those who are affected (Vink and Vink-Niese, 2022).

Help overweight patients lose weight to decrease joint pain and function.

Provide self management education to help manage symptoms and adherence to treatment.

Topical NSAIDs prior to oral medications for localised osteoarthritis pain wherever possible

Management Following UK Guidance (Models or Frameworks)

1

Model: Chronic Care Model (CCM)

The model incorporates multidisciplinary care to enhance long term care of Osteoarthritis (Tan et al., 2024).

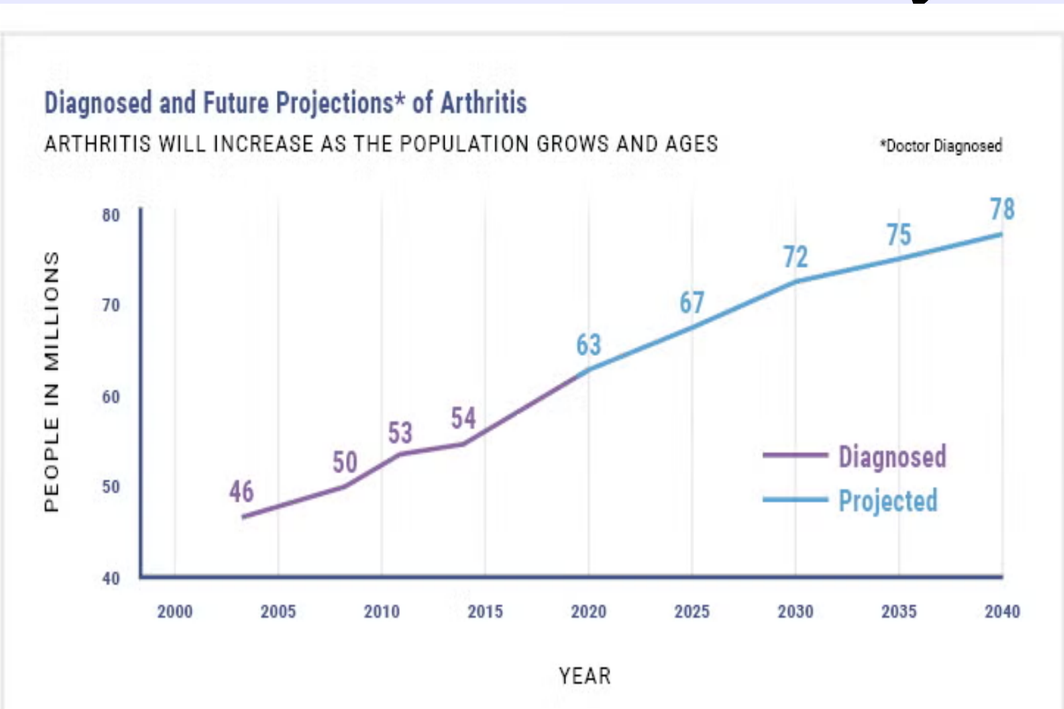
It supports proactive follow-up and patient self-management for lasting health results.

2

Framework: NHS Comprehensive Framework

The framework provides for individual health objectives and choices in personalised care planning (Wong et al., 2022).

The framework enhances community resources and shared decision-making in the strengthening of self-management.



(Source: Oaaction, 2026)

Treatment Options in the UK

Non-pharmacological Treatment

Physiotherapy increases joint range of motion, strength of muscles and physical function (Lalande et al., 2024).

Weight loss decreases the mechanical forces on the painful joints and decreases pain.

Pharmacological Treatment

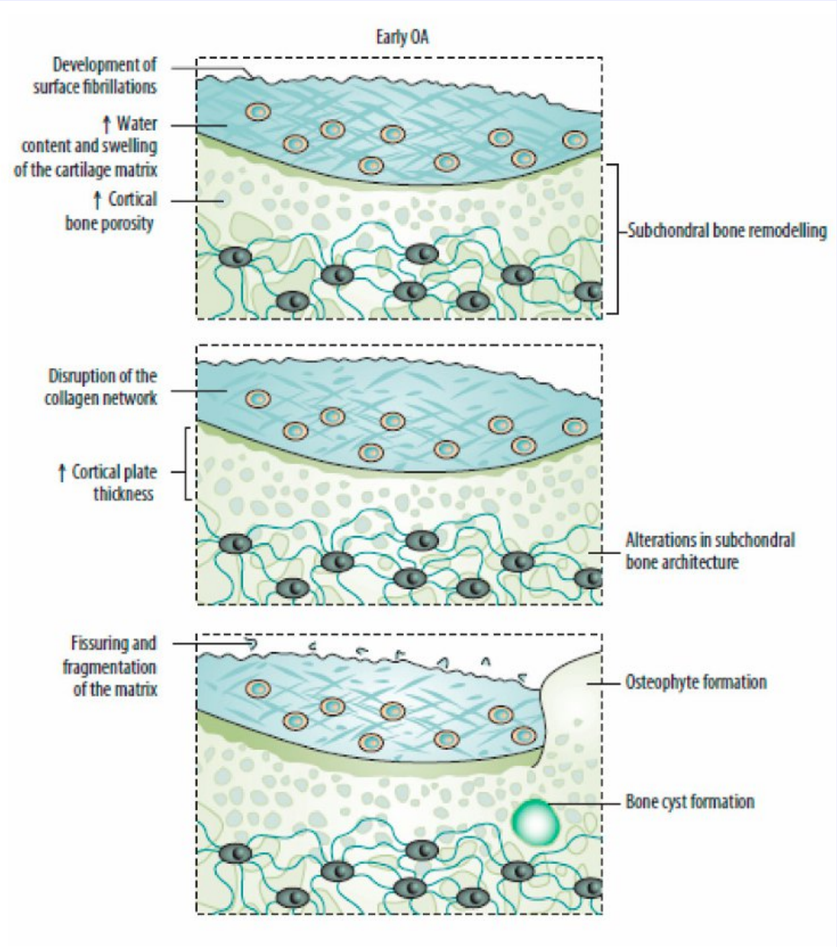
Topical NSAIDs are used for mild pain while oral NSAIDs are used for moderate pain when the topical medications are not working (Wang et al., 2022).

Intra-articular corticosteroid injections can be used to relieve pain in a severe flare up.

Surgical Treatment

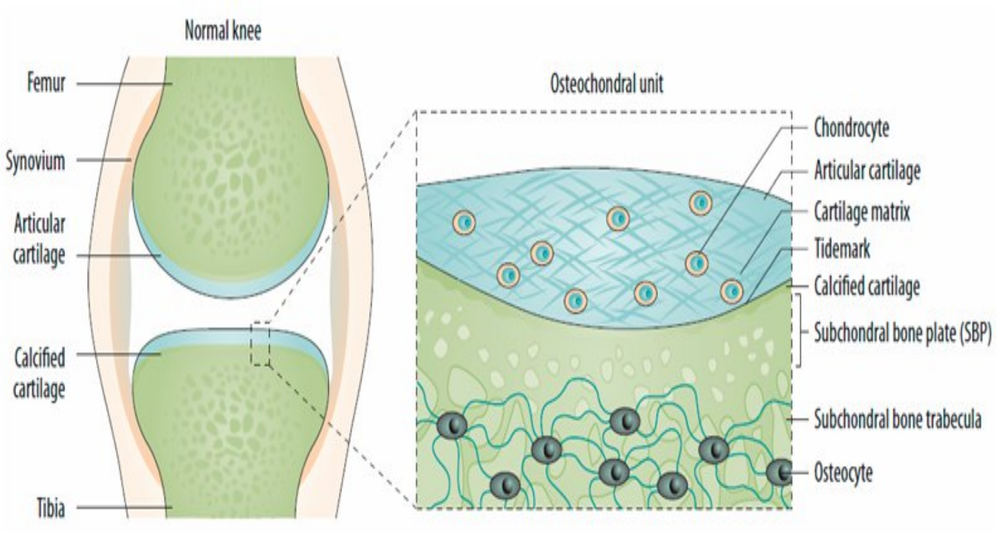
Joint replacement surgery is performed when a person's symptoms are not relieved by conservative treatments (Özcan and Yurten, 2023).

In advanced osteoarthritis, surgery can help to restore mobility and quality of life.



(Source: Coaccioli et al., 2022)

Comorbidities and Prevention



(Source: Coaccioli et al., 2022)

Comorbidities

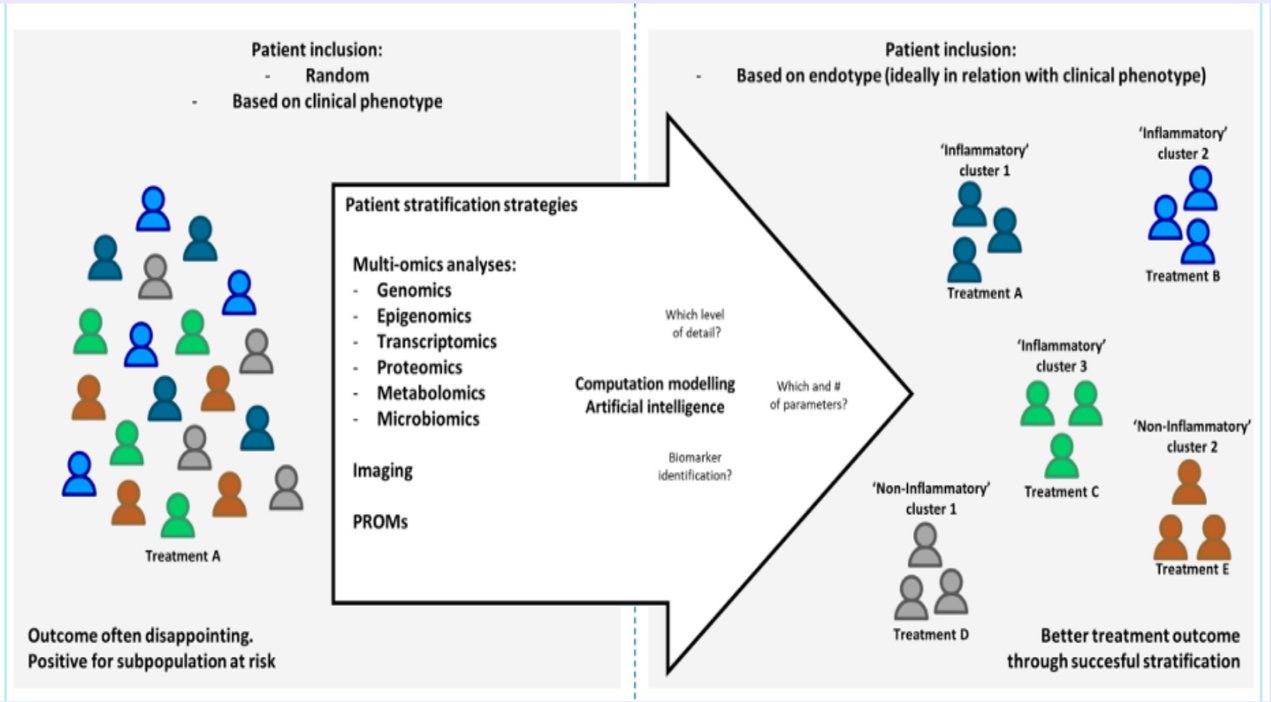
Mechanical joint loading, and progression of Osteoarthritis is enhanced by obesity. Systemic inflammation is a marker of type 2 diabetes and it has a detrimental effect on health outcomes (Nedunchezhiyan et al., 2022).

Prevention

Keep a healthy body weight, minimising the amount of weight placed on the joints. Regularly do strengthening exercises to promote joint stability (Martina et al., 2022).
Avoid injuries to the joints from physical activity and wearing protective equipment.

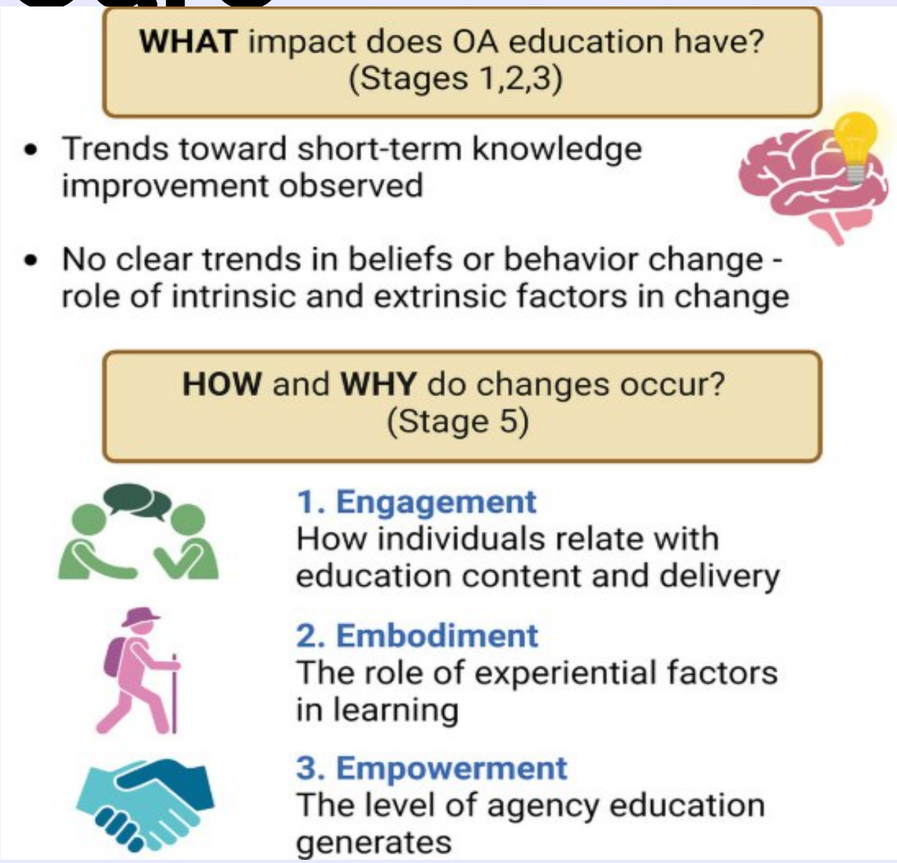
Prevention Way

Keep body weight at a normal level to reduce cartilage damage in the adult (Sanchez-Lopez et al., 2022).
Avoid repetitive joint injuries in the workplace and recreational activities.
Properly rehabilitate and use physiotherapy to treat previous joint injuries.
Manage chronic diseases such as obesity and diabetes to decrease the progression of disease.



(Source: van den Bosch et al., 2024)

Co-Productive Care



(Source: Simick Behera et al., 2023)

Skills

Clear communication between professionals and people seeking treatment for informed decisions and realistic treatment expectations (Nicolson and Holden, 2023).

Evaluation needs to be executed using a comprehensive multidisciplinary evaluation of physical, psychological and social needs.

Values

Individualised osteoarthritis management plans need to be developed in accordance with individuals' preferences and choices.

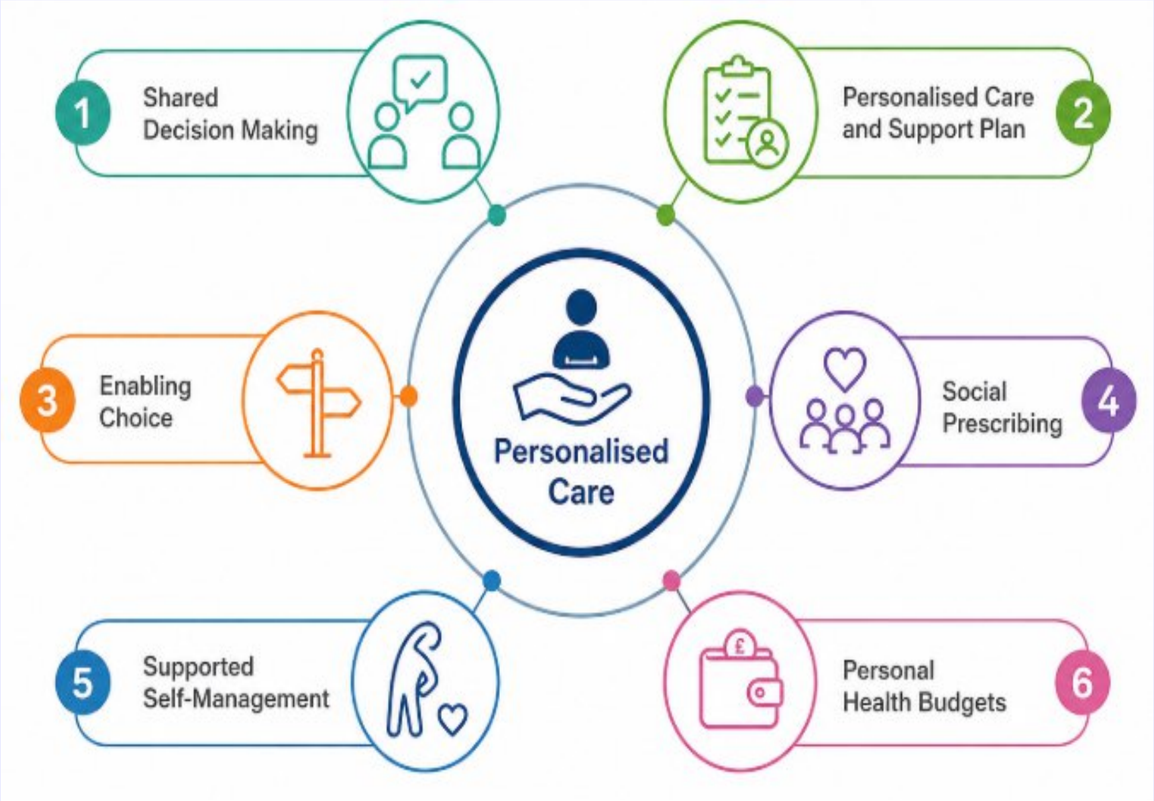
Partnership needs to be encouraged, by acknowledging that patients are equal decision-making partners (Flores-Cortés et al., 2025).

Behaviours

Involve patients in decisions about their care and treatment and to involve them in their care as it progresses (Simick Behera et al., 2024).

Effective team working between professionals and multidisciplinary teams for a coherent and comprehensive approach to care.

Recommendation



(Source: Self-developed)

Personalised Care

Adopt Shared Decision Making to prioritise treatment decisions based on values and information (NICE UK, 2026).

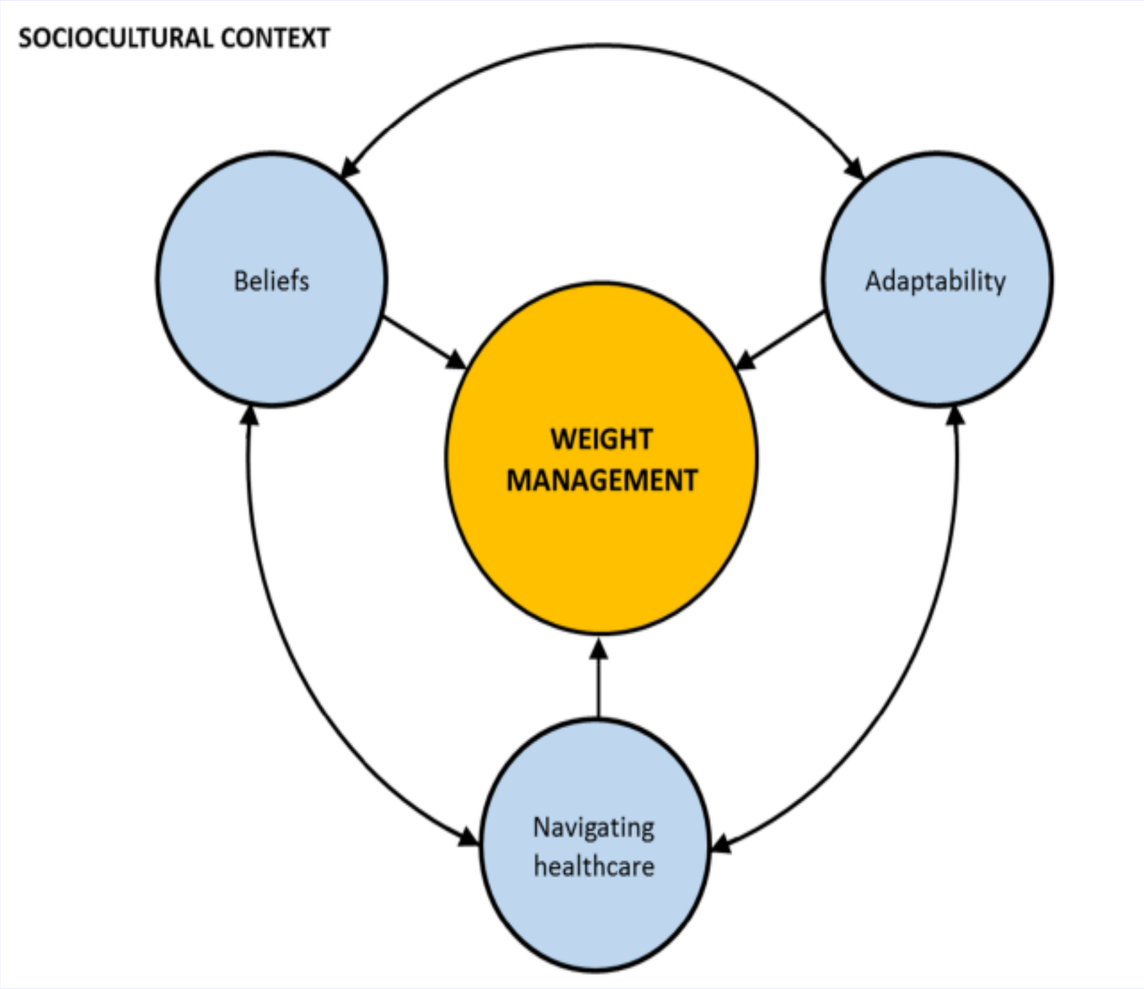
Create a Personalised Care and Support Plan which is individualised around goals, needs and functional ability (NHS UK, 2026).

Encourage Enabling Choice by clearly talking with the individual about appropriate treatment and rehabilitation choices.

Increase Social Prescribing to increase physical activity, wellbeing and engagement with communities.

Enhance Supported Self-Management via education, coaching and on-going professional follow-up (NHS UK, 2026).

Increase flexibility and access to personalised services through making consideration of Personal Health Budgets.



(Source: Coaccioli et al., 2022)

Recommendation (Contd.)

Self-Management Support

Educate patients about what happens during the development of Osteoarthritis and managing symptoms (Battista et al., 2022).

Create realistic exercise plans that are specific to each person's mobility and functioning.

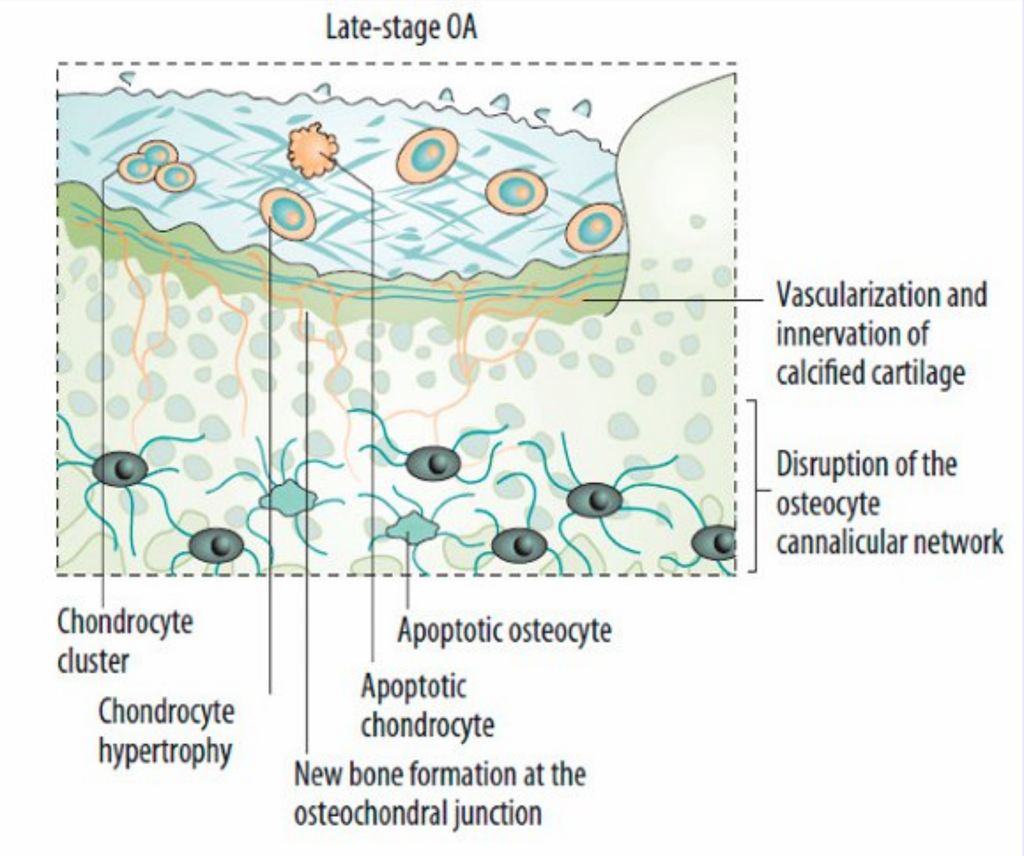
Provide safe and effective support for weight management and health through individual dietary recommendations and lifestyle changes (Pavlovic et al., 2023).

Regularly check for symptoms and then modify management plans as clinical needs change.

Promote community rehabilitation programmes to help keep people active and independent (WHO, 2026).

Conclusion

Early diagnosis and holistic person-centred management of the condition is needed to achieve good long-term outcomes for Osteoarthritis.
Collaboration across disciplines, education and exercise are effective ways to treat the patient, supported by NICE guidance.
Personalised care and self-management leads to better functional independence, symptom management and adherence to treatment.
Team health care strategies improve the quality of life and minimise the long-term impact of Osteoarthritis.



(Source: Pavlovic et al. 2023)

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Thank You