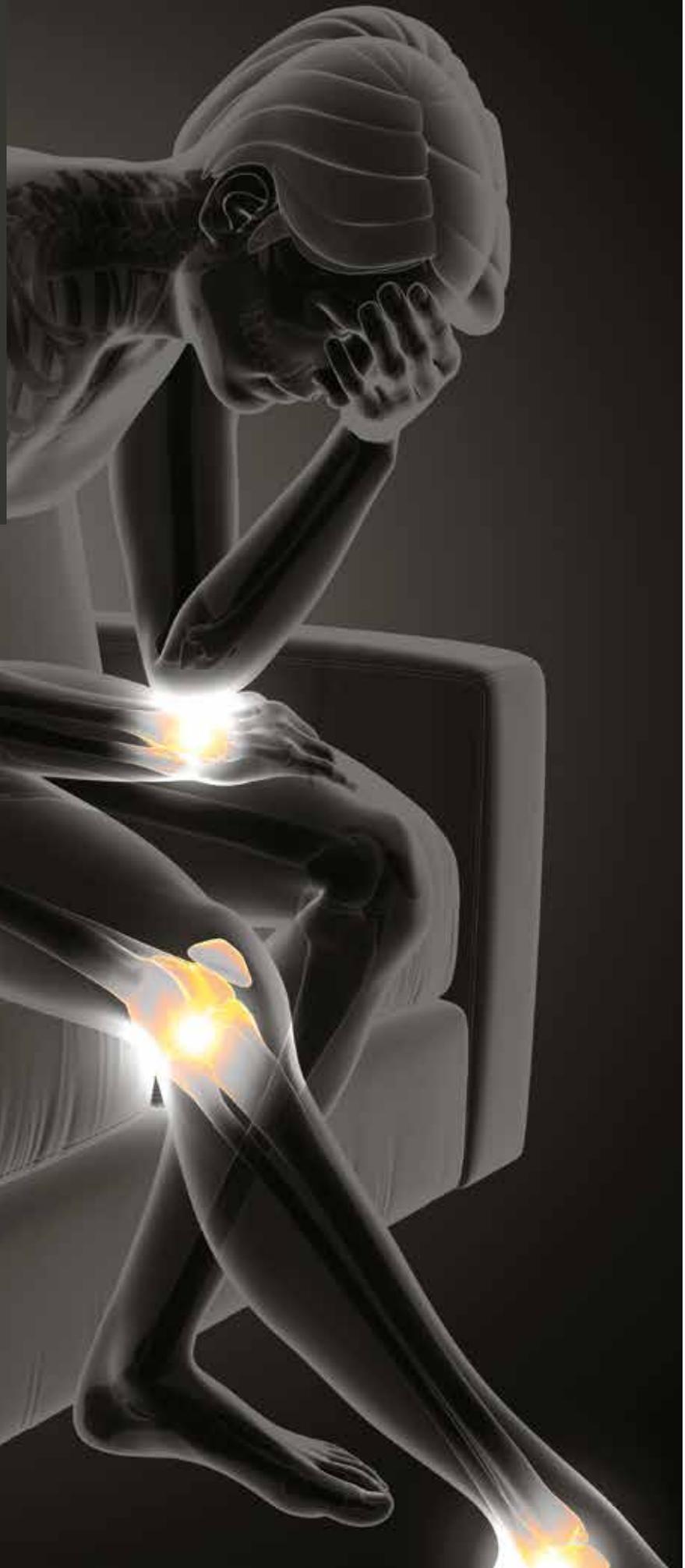


JOINT HEALTH OF THE NATION

Stepping up provision
for active, independence
in later life



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FOREWORD

With a quarter of our population over 65 and the number of over 80's doubling over the past two decades¹, the incidence of joint and musculoskeletal conditions, as well as related comorbidities, is significantly impacting the health of the nation.

Whilst greater longevity is a cause for celebration, the ageing population is placing an unprecedented strain on health and social care provision. Patients over the age of 65 constitute two-thirds of hospital admissions, 40% of all hospital bed days and 65% of National Health Service (NHS) spend in acute care.² Health and social care spend on those with at least one long-term condition is currently around £30 billion and rapidly increasing.³ As a result, the current model of care is at tipping point and in urgent need of a new approach to ensure that the increasing numbers of older people receive the best possible care and chance to live active and fulfilled lives for as long as possible.

Dementia, cancer, diabetes and heart disease are conditions most commonly associated with ageing, in the UK. However, the incidence of joint health conditions far outweighs the prevalence of these long-term conditions with joint and musculoskeletal conditions, including osteoarthritis and rheumatoid arthritis, being the greatest cause of disability in the UK.⁴

The number of people with joint and musculoskeletal (MSK) disorders, specifically osteoarthritis, in the UK is also increasing at an alarming rate and will be over three times the incidence of cancer by 2030.⁵

This is partly due to the rising prevalence of risk factors such as obesity and poor fitness levels but mainly as a result of the rate at which the population is ageing.

Whilst significant strides have been taken to prioritise joint and musculoskeletal health, it is time to step up the pace to ensure that it is given the same priority for policy and resources as other major conditions like cancer, mental health and cardiovascular disease. A greater focus needs to be placed on self-management to prevent joint and musculoskeletal conditions, having a significant impact on an ageing population's quality of life and mental wellbeing.

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With the burden of disease changing from high mortality to high disability, we need to increase awareness that good joint and musculoskeletal health is fundamental to healthy ageing and vital to ensure people can live independently and without pain.

Professor Anthony Woolf, Chair of the Arthritis and Musculoskeletal Alliance (ARMA)

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Canvassing opinion from rheumatology experts, patient organisations and thought-leaders, this Report aims to highlight the overwhelming burden of our ageing population's joint health needs and the impact of joint and musculoskeletal conditions on service provision, as well as on individuals' quality of life and mental wellbeing. In addition, our experts have highlighted the need for healthcare professionals to adopt a change in approach and a shift to prevention and self-care, to reduce the escalating burden and ensure active, healthy and independent later lives, now and for future generations.

17 MILLION

17 MILLION PEOPLE IN THE UK HAVE A JOINT AND MUSCULOSKELETAL CONDITION

850,000

850,000 HAVE DEMENTIA

3.5 MILLION

3.5 MILLION HAVE DIABETES

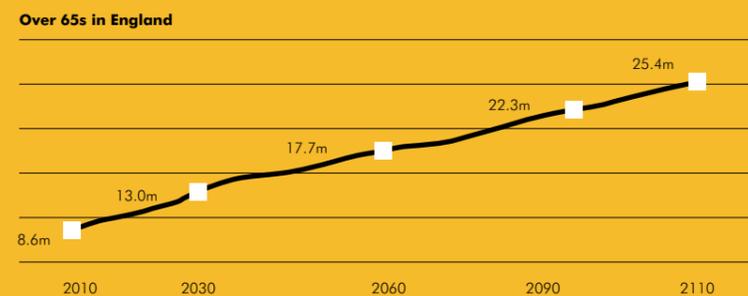
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INCIDENCE OF CANCER

ESCALATING HEALTH NEEDS OF AN AGEING POPULATION

In the UK, by 2030, nearly 13 million will be aged 65 and nearly one in five people currently in the UK will live to see their 100th birthday.⁶ Inevitably, associated multiple physical and mental health conditions will place an increasingly overwhelming strain on health and social care provision. The number of older people with care needs is predicted to rise by 61 percent by 2030.⁷

PROJECTED AGEING POPULATION IN UK



The World Health Organisation (WHO) focus on care for older people

In a bid to address the urgent health needs of the ageing population the WHO have called for all European countries to include specific priority actions to stem the rise in musculoskeletal conditions to improve overall health.

Professor Woolf welcomes such proactive steps;



For years health policy across the world has ignored diseases which affect the lives of so many people and focussed on those with high mortality such as cancer, heart disease and diabetes. At last dealing with the burden of joint and musculoskeletal conditions is becoming more of a priority. With a greater focus on self-management and person-centred care, better outcomes will soon be achieved.



Poor understanding and restrictions to treatment and services

Currently there appears to be a lack of understanding about the extent of the impact arthritis and musculoskeletal conditions have on people's lives both from individuals and from within the healthcare setting.

In many cases, those with arthritis also experience a certain apathy towards their condition and treatment within primary care. Many people find it takes a long time to get a diagnosis, without which they can't access appropriate treatment. For example axial spondyloarthritis takes an average 8.5 years to get a diagnosis; Ehlers-Danlos syndromes, 10 years; Lupus, 6.4 years.

As the prevalence and impact of musculoskeletal conditions is predicted to rise dramatically with the population ageing so quickly, a sharper focus of attention is urgently needed to ensure better prevention and treatment. Increased awareness is also needed, of the role good joint health plays in preventing other long-term conditions and underpinning the ability for older people to recuperate effectively.

Most importantly, greater awareness is needed of the steps people can take themselves to maintain good joint health.



We believe that self-management can really help people with arthritis and joint problems to live their best lives. We hope that healthcare practitioners continue to focus on this, encouraging patients to find ways to help themselves and in a way that suits them.

Shantel Irwin, CEO, Arthritis Action



1 in **5**
WILL BE 100 YEARS OLD

AGEING
POPULATION

SOCIOECONOMIC BURDEN OF JOINT AND MUSCULOSKELETAL CONDITIONS

Millions are affected by joint and musculoskeletal conditions every day, causing a significant impact on individuals' quality of life. These conditions also impart a costly socioeconomic burden as they are the biggest cause of disability and pain across the UK.

Over 30 million working days are lost due to joint musculoskeletal conditions each year and 57% of people with arthritis report they experience pain every day.⁸ According to Arthritis Research UK, musculoskeletal conditions account for the third largest area of NHS programme spending at £4.7 billion.⁹

Joint conditions, such as neck and back pain, arthritis and rheumatic conditions, also account for one in five visits to the GP,¹⁰ as well as placing a huge burden on secondary care with increasing hip and knee surgery as well as hospital stays as a result of fractures and falls. In fact, more people under 60 are opting for hip replacement surgery due to chronic hip pain than ever before with 76% more having surgery than ten years ago.¹¹

By 2030 it is predicted that there will be 17 million people in the UK with arthritis,¹² placing an unprecedented burden on an already overstretched NHS.



To be effective in the treatment of arthritis requires us to look at the social determinants of osteoarthritis and how best to keep patients active. This requires new ways of working in primary care teams with our mental and social care colleagues. Understanding the patient, their lives and their needs will allow us to help them with their self-management and tailor treatment to their needs.

Dr Alastair Dickson, Trustee of PCR Society and UK Gout Society



To reduce the burden of osteoarthritis on individuals and the health care system, we need to help people to know how to help themselves look after their musculoskeletal health better. We also need to encourage and support people to seek advice about what they should be doing for themselves to maintain their joint health before they need to seek treatment.

Professor Woolf



Optimising joint health to prevent frailty

Osteoarthritis (OA) is one of the major causes of disability in people aged 65 or older. As well as being caused in many cases by the ageing process, OA may also accelerate biological ageing and frailty due to the disability and pain resulting from it.¹³ The increase in cartilage ageing in osteoarthritis has also been found to, not only, be associated with higher ageing in other organ systems, but also, linked to a higher rate of comorbidities, such as cardiovascular disease.¹⁴

Joint conditions are typically characterised by pain and limitations in mobility, dexterity and functional ability. They impact on every aspect of daily life, including work, hobbies, relationships and ultimately can prevent the fundamental human right to live independently.¹⁵

Preventing frailty in later life is also key to reducing the burden on health systems. Frailty in later life is characterised by a progressive decline in physical, mental and social functions, increased vulnerability to sudden deterioration and reduced ability to recover from any setbacks.¹⁶ Compared to fit older people, those with frailty are at greater risk of disability, care home admission, hospitalisation, and death.^{17,18} Those with mild frailty have twice the mortality risk of a fit older person but for those who are severely frail, the risk is quadrupled.¹⁹

30 MILLION

WORKING DAYS LOST EACH YEAR

£4.7 BILLION

NHS PROGRAMME SPENDING

PHYSICAL IMPACT OF JOINT PAIN AND OSTEOARTHRITIS

Arthritis, literally means joint inflammation. Rheumatoid and osteoarthritis are the most common types of arthritis but have completely different pathways. Rheumatoid arthritis (RA) is a complex and serious, systemic autoimmune condition where the immune system attacks the joint tissue causing inflammation, stiffness, pain and extreme fatigue. This chronic disease, which chiefly impacts upon joints can also affect other organs such as the heart, eyes and lungs and uncontrolled RA can cause premature mortality.

Osteoarthritis, is degenerative arthritis and results from a combination of the breakdown of the joint and the body's attempted repair processes, causing difficulty moving and considerable pain.

Incidence of osteoarthritis increase with age due to 'wear and tear' on the joints and it is the most common chronic condition of the joints, affecting 8 million people in the UK. It causes pain, stiffness and for some people can be disabling, and often develops slowly over many years. The pain associated with osteoarthritis can have a devastating impact on people's lives with 1 in 8 describing their pain as often unbearable.²⁰ Osteoarthritis patients also report diminished ability to perform the most basic activities of daily living, such as climbing stairs or even changing from a sitting to standing position.²¹

Osteoarthritis can arise in any synovial joint in the body but is more common in the large joints, such as knees, hips, hands and spine.²² It develops slowly over 10-15 years as a result of cartilage, which acts as a cushion in between the joints, shrinking

away causing the bones in the joint to rub directly against one another. Osteoarthritis can also be manifested by bony growths around the edge of joints, and mild inflammation (synovitis) of the tissue surrounding the affected joint. Common precursors of the condition include cartilage tears, including damage to the meniscus, and injury to the joint itself.

The pain of knee or hip osteoarthritis also makes sufferers favour one side or another, often leading to joint instability and an altered gait, making exercise even more difficult as well as increasing the likelihood of falls and fractures.

Osteoarthritis caused 90% of primary hip and 98% of primary knee replacement surgery in 2015.²³



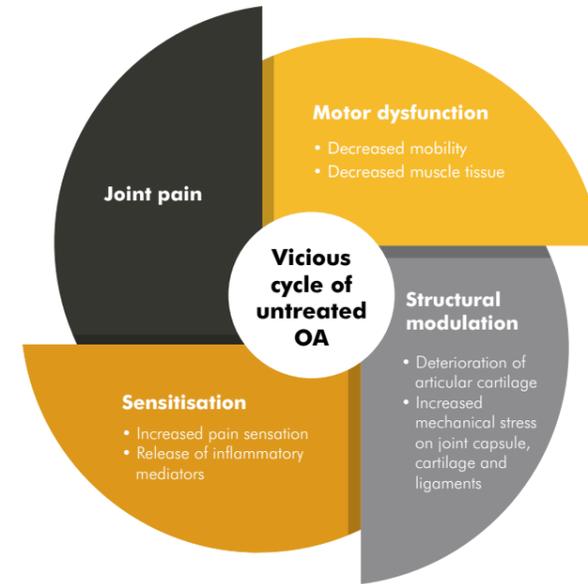
8 MILLION

Osteoarthritis affects at least 8 million people in the UK

1 in 8

UNBEARABLE PAIN

Inactivity caused by the pain of osteoarthritis (OA) exacerbates unhealthy ageing and frailty



Joint function with ageing

- Sarcopenia
- Loss of proprioception and balance
- Increased joint laxity

Impact on joint tissues of ageing

- Cartilage more 'brittle' and chondrocytes with less anabolic and more catabolic activity
- Loss of normal bone structure
- Increased stiffness of ligaments and tendons
- Meniscal degeneration

Musculoskeletal ageing

Susceptibility to OA

Osteoarthritis (OA)

OA Factors

- Obesity
- Joint injury/instability
- Genetics
- Anatomy
- Joint wear and tear

OSTEOARTHRITIS AND COMORBIDITIES

The condition often leads to immobility and, as a result, obesity is a major comorbidity in patients with osteoarthritis. This then presents a vicious cycle of inactivity leading to further weight gain which causes increased joint pain and inability to move.

Weight gain exacerbates osteoarthritis:

- People who are overweight or obese are nearly five times more likely to develop knee arthritis than those of normal weight.²⁴
- Every pound of excess weight exerts about four pounds of extra pressure on the knees.
- The fat itself is also active tissue that creates and releases chemicals, which promotes inflammation.²⁵

Further osteoarthritis comorbidities also include cardiovascular disease, diabetes, osteoporosis, cancer and depression. Men and women over 65 with osteoarthritis, have a 15% and 17% (respectively) increased risk of hospitalisation with cardiovascular disease.²⁶ Failure to manage these associated conditions effectively has a serious impact on the patient, potentially adding delays to the care pathway, and the comorbidities themselves may increase the patient's overall levels of disability, or even their risk of mortality.

X5 OVERWEIGHT PEOPLE ARE NEARLY FIVE TIMES MORE LIKELY TO DEVELOP KNEE ARTHRITIS

MENTAL IMPACT OF JOINT PAIN AND OSTEOARTHRITIS

There is a strong correlation between musculoskeletal health and mental health. As previously mentioned, osteoarthritis has a profound impact on an individual's health and wellbeing since it is associated with increased pain, decreased function and increased disability.

Revealing the extent of the mental impact, a recent survey by GOPO® Joint Health, found that for 62% of respondents, joint pain made it hard for them to walk, a quarter said it affected their socialising and ability to work and nearly half of the respondents had difficulty even getting in and out of a car.²⁷ As a result, perhaps not surprisingly, many suffer from loneliness and isolation.

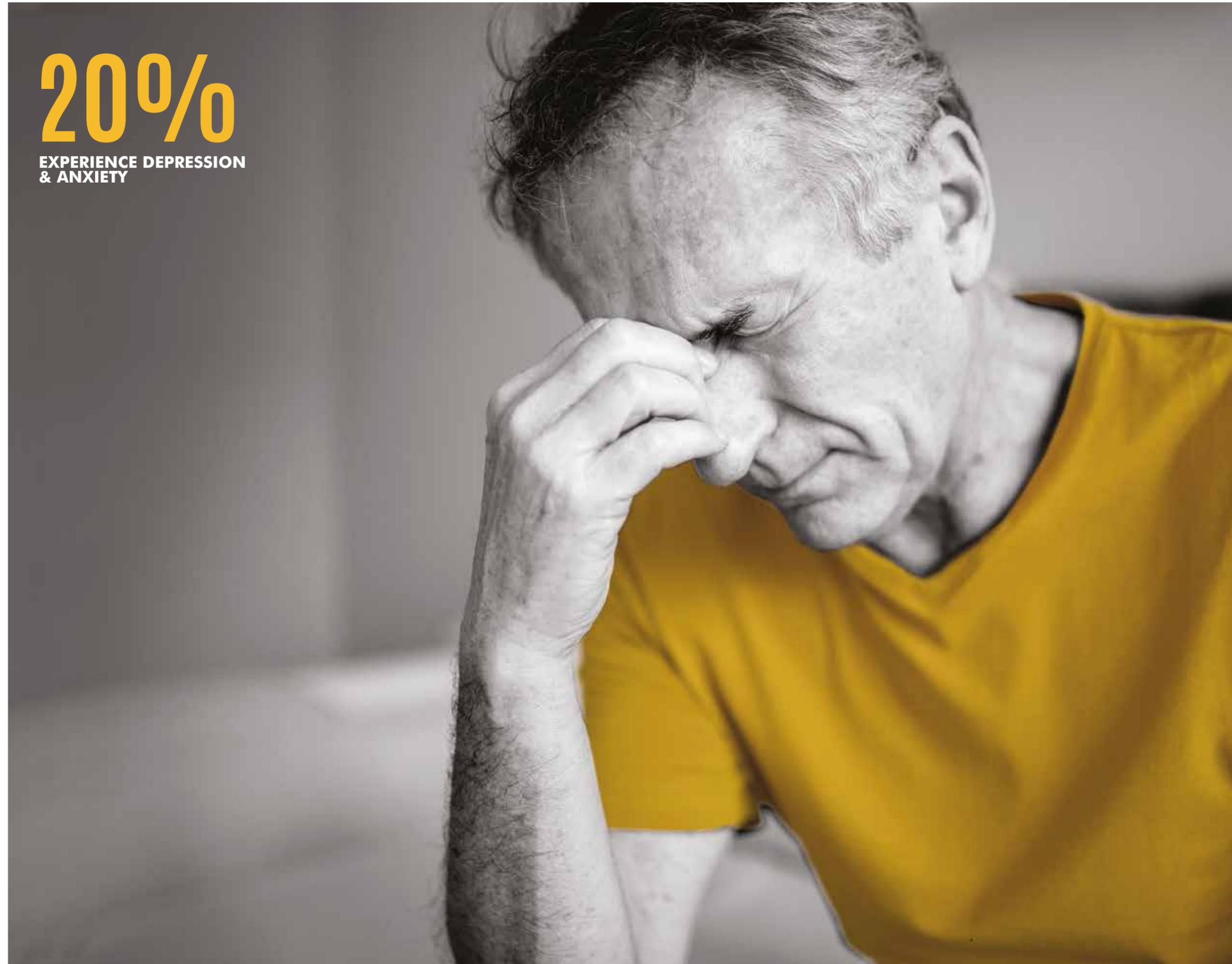
Depression and loneliness can negatively impact an elderly person's health further as they result in raised levels of stress hormones and inflammation, which in turn can increase the risk of heart disease, arthritis, Type 2 diabetes, dementia and even suicide attempts. Recent research has also found loneliness and depressive symptoms to be related risk factors for worsening cognition.²⁸

Currently, however, there is poor provision for treating mental health issues in the elderly.²⁹ As a result, ARMA are making a recommendation that everyone diagnosed with a long-term musculoskeletal condition should have rapid access to psychological support, as well as, access to effective treatments to ensure the symptoms of anxiety and depression can be treated along with those of arthritis, to ensure an active and good quality of life. Furthermore, the new Mental Health Taskforce report published by The King's Fund, recommends that integrating physical and mental health care in the NHS will not only improve health outcomes but will also save more than £11 billion a year.³⁰

£11bn
POTENTIAL NHS SAVING

20%

EXPERIENCE DEPRESSION
& ANXIETY



JOINT CONDITIONS — HELPING PATIENTS TO HELP THEMSELVES

Self-care has been identified as key to manage and prevent long-term joint health problems.

As part of a broad holistic assessment for osteoarthritis, NICE Guidelines³¹ recommend providing access to appropriate information as well as an individualised self-management plan that encourages positive behavioural changes such as exercise and weight loss and the ESCAPE-pain programme. Extensive evidence supports the use of muscle strengthening and aerobic exercises to reduce pain, disability, medication intake and to generally improve physical functioning and wellbeing for those with OA.

Early intervention

At the first sign of joint pain, many opt immediately for analgesics. Paracetamol is still the most common first-line treatment for pain relief. However, several reviews,³² meta-analyses³³ and international guidelines have concluded that paracetamol provides minimal if any, long-term pain relief in OA and is associated with considerable toxicity.³⁴ NSAID's are also commonly prescribed for joint pain but can cause serious gastrointestinal side-effects, such as ulcers and bleeding, particularly in the elderly.³⁵

Consultant Rheumatologist Dr Rod Hughes comments;



As a nation we tend to ignore the health of our joints until they cause us problems. We do not keep our muscles in trim, our weight under control and often ignore minor injuries to our joints and don't get them treated in an effective and timely manner, resulting in an increasing number of people taking long-term analgesics to control joint pain or needing surgery to repair or replace knees or hips.

We can also help to protect our joints and effectively treat joint pains by using a clinically proven joint and soft tissue supplement such rose-hip extract prepared as the galactolipid GOPO® to our daily diet. This has been shown to help protect and repair joints and should certainly be considered at the early onset of even mild joint pain or after joint injury. Not only do people report great benefit from these supplements but good quality clinical research also proved GOPO® is effective.



Other joint health supplements commonly used to treat osteoarthritis are fish oils, including omega 3 or 6 fatty acids, as well as glucosamine and chondroitin and those with plant extracts, such as ginger and turmeric.

Treating joint pain as soon as it starts to impact on daily life, with increased physical exercise, a healthy balanced diet as well as safe, clinically proven supplements, can reduce inflammation and regenerate cartilage. This will help to maintain an active life and prevent the all too common sharp decline from osteoarthritis to frailty.

SELF-
MANAGEMENT



STEPPING UP TO SELF-MANAGE OSTEOARTHRITIS

For the 17 million people in the UK predicted to have arthritis by 2030,³⁹ supported self-management is key to treat any joint pain early and prevent further impact on a person's quality of life.



Studies show supported self-management can substantially affect individuals' health related quality of life and the physical, psychological and social impact of chronic health conditions.

Nita Parmar from ARMA



To reduce the burden of joint and musculoskeletal provision and improve the quality of life of sufferers sooner, the MSK community call for the following five STEPS to be implemented:

- S** Self-management
- T** Tailored prevention programmes
- E** Earlier intervention
- P** Psychological support
- S** Speed up referrals and access



5

Five STEPS to stop arthritis in it's tracks, enabling an active, fulfilled later life.

S

Speed up referrals and access

Quicker treatment to improve patient outcomes and prevent comorbidities and frailty

P

Psychological support

Ensure holistic approach to alleviate impact on mental health

E

Earlier intervention

Seek prompt advice to treat joint pain

T

Tailored prevention programmes

Provide personalised approach to improve outcomes

S

Self-management

Consider life style changes, diet, exercise and clinically proven supplements to protect joint health

SUMMARY

With the escalating burden of joint pain and musculoskeletal conditions impacting on individuals, as well as on society and health care systems, it is time to increase awareness that good joint and musculoskeletal health is fundamental to healthy ageing and vital to ensure people can live independently and without pain.

It is essential that self-management is supported to ensure patients have the information and advice necessary to encourage daily decisions that will improve health related behaviours and, ultimately, clinical outcomes.⁴⁰

Consistent and quicker access to relevant treatments and psychological support, personalised prevention and an integrated person-centred holistic approach offered nationwide across the care pathway, are also urgently needed to facilitate this change and improve patient outcomes sooner.

“

Ensuring that everyone maintains their joint and musculoskeletal health and functional capacity will help to ensure that they have the strength and resilience to age healthily and bounce back from any illness that will inevitably come their way

”

concludes Professor Woolf.

CONTRIBUTORS

With grateful thanks to the following experts for their contributions to The Joint Health of the Nation Report:

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ARMA

The Arthritis and Musculoskeletal Alliance (ARMA) is the umbrella body for the arthritis and musculoskeletal community in the UK, and our mission is to transform the quality of life of people with musculoskeletal conditions. We have 40 member organisations ranging from specialised support groups for rare diseases to major research charities and national professional bodies. arma.uk.net

Shantel Irwin

CEO, Arthritis Action

Arthritis Action

Arthritis Action is the only UK charity offering hands-on, practical help for people with arthritis to improve their quality of life whilst living with the condition. They offer members healthy eating advice, clinical appointments, exercise tips and pain management techniques whether or not they are having medical treatment. arthritisaction.org.uk

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Trustee Primary Care Rheumatology Society
Trustee UK Gout Society

PCR Society

The only primary care medical society in the world dedicated to improving primary care teams knowledge and care of both musculoskeletal and rheumatological medicine.

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