



FIX FRAILITY *and make your* **BONES STRONGER**

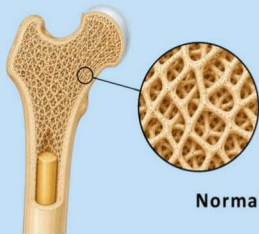


Converting Disability
to **Vitality**
IN OLDER ADULTS

WHAT HAPPENS TO OUR BONES AND MUSCLES AS WE AGE?

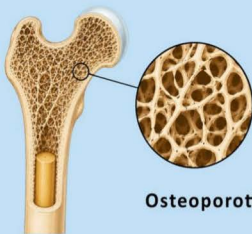
As we age, changes can occur in both our bones and muscles. These changes may affect strength, balance, mobility and overall independence.

Osteoporosis - When bones become thinner and fragile



Normal Bone

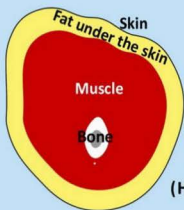
A healthy bone has a dense, strong internal structure that provides support and stability for everyday activities.



Osteoporotic bone

Osteoporosis causes bones to become thinner, weaker, and more fragile. As bone density decreases, the risk of fractures increases, especially in the spine, hip, and wrist.

Sarcopenia - When muscles become smaller and weaker



**Normal thigh
(Healthy muscle)**

In a healthy thigh, the muscle is thick and strong. There is only a small amount of fat around it. This helps you to walk, stand up and move with good balance. Strong muscles protect your joints and make it easier to stay steady during everyday activities.



**Thigh with
sarcopenia
(Less muscle)**

When you develop sarcopenia, the muscle becomes much smaller and weaker. Fat starts to fill the space where the muscle used to be. This makes it harder to move, stay steady, or get up from a chair. Weak muscles increase the chance of slips and falls.



WHAT IS FRAILITY?

Frailty is a health problem that can develop as we get older. It happens when the body gradually loses strength and makes it harder to recover after an illness or injury. Frailty is common as we get older. The good news is that there are things you can do to help. With the right exercise, good nutrition and support, it may be possible to prevent frailty, slow it down or even improve it.



WHY DO I BECOME FRAIL?

As we get older, our muscles naturally become smaller and weaker. This is called sarcopenia and can start from around the age of 50. Weak muscles can make everyday activities harder and increase the risk of falls and frailty. Sarcopenia affects about 1 in 10 people aged 50–59 and around 1 in 3 people aged 80 and over. There is no medicine for sarcopenia, but strength and balance exercises can help keep your muscles strong and help you stay active and independent.



HOW CAN I FIND OUT IF I AM FRAIL?

You can use this questionnaire to check if you may be frail. Just answer all the questions by ticking the appropriate box on the right. Then count all the ticks in the yellow coloured boxes. If you count more than 3 ticks in the yellow boxes, then you may be frail. (Ref PRISMA 7)

No	QUESTION	YES (Tick if Yes)	NO (Tick if No)
1	Are you older than 85 years?	☐	☐
2	Are you male?	☐	☐
3	In general, do you have any health problems that require you to limit your activities?	☐	☐
4	Do you need someone to help you on a regular basis?	☐	☐
5	In general, do you have any health problems that require you to stay at home?	☐	☐
6	If you need help, can you count on someone close to you?	☐	☐
7	Do you regularly use a stick, walker or wheelchair to get about?	☐	☐



WHAT HAPPENS IF I AM FRAIL?

Frailty can make your body weaker and slow your recovery after illness or injury. Weaker muscles can also affect your balance and increase your risk of falling. Around 1 in 3 people over 65 fall each year, rising to 1 in 2 people over 80. Falls can affect your confidence, mobility and independence.

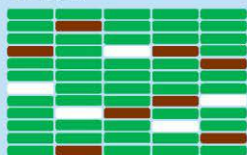


WHAT HAPPENS TO OUR BONES IN OSTEOPOROSIS?

Bone is living tissue that is constantly renewed. When this natural renewal process becomes unbalanced, bones gradually become weaker and osteoporosis can develop, which can lead to fractures.

- Healthy bone
- Old bone
- Empty space

1. WHAT IS THE NORMAL CYCLE OF BONE?



Old bone is normally removed and replaced with new bone. When bone removal and formation remain balanced, the bone maintains its strength and structure.

2. HOW DOES OSTEOPOROSIS OCCUR?



Osteoporosis occurs when old bone is removed faster than new bone is formed. Over time, spaces within the bone become larger, making the bone thinner, more porous and weaker.

3. WHY DO BONES BREAK ?



Over time, the larger spaces and reduced bone strength makes it easy for bones to break (fracture). Even a minor fall or injury may be enough to break the bone.

HOW CAN WE TREAT OSTEOPOROSIS?

There are different treatment options for osteoporosis. Below are two common approaches that help protect your bones.

MEDICATION

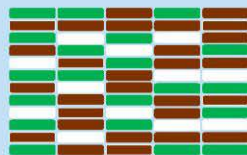


STEP 1: MEDICATION IS TAKEN

Antiresorptive medication slows down the rate at which old bones are removed.

STEP 2: MORE EXISTING BONE REMAINS

Antiresorptive medication slows down bone loss, allowing more of the existing (older) bone to remain. The bones are stronger and break less. However, if they break they do not heal well.



EXERCISE

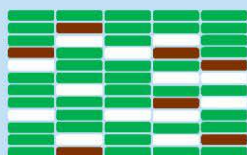


STEP 1: NEW BONE FORMATION IS STIMULATED

Exercise rather than retaining the old bone, stimulates your body to form fresh new bone.

STEP 2: MORE NEW BONE IS FORMED

As your body makes new bone, your bones become stronger and are less likely to break. Even if a bone does break, it heals well.





CAN FRAILTY / OSTEOPOROSIS BE CORRECTED?

Research shows that osteoporosis can be treated, and frailty can often be improved. Exercise, good nutrition, osteoporosis medication, and healthy lifestyle changes can strengthen bones and muscles. Even small increases in activity can improve strength, balance, confidence, and independence.



CAN I BE TOO OLD TO EXERCISE?

Absolutely not. Exercise is safe and beneficial at any age. Gentle, supervised movement can improve strength, reduce pain, and increase confidence. This will help you stay active and independent for longer.



HOW CAN I CHECK MY STRENGTH?

There is a simple way to check leg strength and to determine if you are frail. It is called the 30-Second Sit-to-Stand Test (30s STS).



HOW DO I DO IT?

- 1 Sit on a stable chair with your feet flat on the floor and your arms crossed over your chest.
- 2 Stand up and sit down as many times as you can in 30 seconds without using your hands for support.
- 3 Count the total number of times you stood up.



WHAT DOES IT MEAN?

- Fewer than 12 stands may suggest reduced leg strength or early frailty.
- More stands show better strength and independence.

You can usually safely do this test on your own, but if you have balance issues or dizziness, have someone nearby for support. Regular strength and balance exercises can help improve your score and independence.



IS THERE A PROGRAMME THAT COULD HELP ME?

The Free From Pain Programme is a drug-free, injection-free, 12-week rehabilitation plan designed mainly for adults over 60. It is ideal for those with joint or muscle pain, stiffness, or general weakness who want to stay active, improve balance, and reduce the risk of falls. The programme has three components: Otago balance training, Motor Control Exercises for the lower back, and Isometric strengthening for the neck and shoulders. This will help relieve pain, restore movement, and build lasting strength and confidence.





Frailty is uncommon in our 60s, but it becomes more likely as we reach our 70s and 80s. It can make everyday activities, such as walking, getting dressed, or managing around the home, more difficult. The good news is that when frailty is recognised early, it can often be improved,

and in some cases, even reversed. Staying physically active, eating well, and maintaining healthy lifestyle habits can make a real difference. Taking these steps can help us stay stronger and more independent for longer, while reducing the risk of disability later in life.



Following menopause, bone loss speeds up and fractures can follow a pattern. A wrist fracture is often an early warning sign, sometimes followed years later by a spinal fracture and, eventually, a hip fracture. Each fracture increases the risk of the next. The key message is that

early treatment after a wrist fracture can significantly reduce the risk of more serious fractures in the future.

SARCOPAENIA / FRAILITY / OSTEOPOROSIS

Inter-related problems



One common fix
FREE FROM PAIN
A lifestyle medicine based solution

Includes

1. Free from pain - Exercise book
2. Free from pain - Information Book
3. Ankle weights
4. Resistance band
5. Youtube videos
6. Online / face to face support with a physio
7. State of the art AI assisted exercise programme
8. Constant evaluation of your performance

All within the comfort of your home



THE OTAGO EXERCISE PROGRAMME

Developed in New Zealand by Robertson and Campbell, the Otago Programme offers simple, safe, and easy-to-follow strength and balance exercises for older adults that have been proven worldwide to enhance stability and reduce falls.

RESEARCH EVIDENCE



Falls and injuries reduced by 35%.



Live Longer - Keeps you active and independent.



Less Pain - Eases stiffness and arthritis.



Better Balance - Boosts posture and confidence.



Front knee strengthening exercise using ankle weights



Slide flexion exercise using the palm of your hand

ISOMETRIC EXERCISES FOR NECK & SHOULDER PAIN



Isometric exercises strengthen your neck muscles while keeping your neck still. They help improve support around your neck, reduce muscle tension and stiffness and make everyday activities more comfortable.



MOTOR-CONTROL EXERCISES (MCE) FOR LOWER BACK PAIN

Motor control exercises help you learn how to use the muscles that support your lower back effectively. They focus on gentle, controlled movements to improve stability and movement which can help reduce pain and make everyday activities easier.



Bridge exercise (Supine plank):
Safe to do on the floor or bed

RESEARCH EVIDENCE



Up to 26% Reduction in Fall-Related Fractures

Wang Q, Jiang X, Shen Y, Wang H, Pan J. Effectiveness of exercise intervention on fall-related fractures in older adults: a systematic review and meta-analysis of randomized controlled trials. BMC Geriatrics. 2020;20:322.

Exercise interventions were associated with a 26% reduction in the risk of fall-related fractures among older adults.



49% reduction in disability

Tak E, Kuiper R, Chorus A, Hopman-Rock M. Prevention of onset and progression of basic ADL disability by physical activity in community-dwelling older adults: A meta-analysis. Ageing Res Rev. 2013;12(1):329-338.

Regular physical activity was associated with a 49% lower risk of disability in older adults.



OUR PATIENT STORIES AND TESTIMONIALS



Stuart avoided the needle and overcame pain with exercise



Neilan who had bone on bone arthritis returned to playing golf without surgery

OUR BOOKS - ALSO AVAILABLE ON AMAZON

FREE FROM PAIN EXERCISE BOOK

Exercises to improve health, decrease disability and provide vitality to your senior years

Dr George Ampat
Consultant Orthopaedic Surgeon



Both books are
authored by

Mr. George Ampat
Consultant Orthopaedic Surgeon
with 25 years of experience



*"Minimise medication,
scale down surgeries and
exercise enthusiastically"*

FREE FROM PAIN

Principles of Lifestyle Medicine to help with musculoskeletal pain and arthritis.
Advice from a Consultant Orthopaedic Surgeon

Dr GEORGE AMPAT
Consultant Orthopaedic Surgeon



FREE FROM PAIN / KEMTAI EXERCISE APP USER GUIDE



1 Set up your device

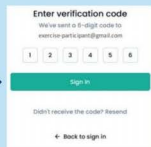
Place your laptop computer or tablet upright in a vertical position on a stable surface, such as a table. Stand approximately 8-10 feet (2.5-3 metres) away from the device.

Make sure you have enough space around you and that the exercise area is safe and free from obstacles.



2 Access your programme

Click the '**Explore your plan**' sent by email or text message. Enter your email address and the verification code to access your programme.



3 Prepare for your session



Prepare your equipment



Access your camera



Test your audio



Check your positioning

4 Begin exercising

Follow the exercise demonstrations on the screen. The platform will track your movements and provide live feedback to help you exercise safely and correctly.



READY TO START?

HOW TO JOIN THE PROGRAMME



Scan the QR code or



www.ampat.co.uk



01704 579337



exercise@ampat.co.uk



Join a supportive community focused on reducing pain and improving quality of life.



STEP

1



Initial Consultation (optional) - £150

If required, we can arrange a comprehensive consultation and assessment with Mr Ampat. This can be online / face to face based on your location. If you have cover with a major health insurance provider, the cost of your consultation may be reimbursable under your policy. This consultation is entirely optional. There is no obligation to proceed beyond the consultation, and equally, you may choose to bypass this step altogether and proceed directly to Steps 2, 3 and 4 of the programme.

STEP

2



Select Your Programme

Choose the option that best suits your lifestyle. Both programmes run for 3 months and include programme books, necessary equipment, YouTube videos, exercise app and support with a physio.

Online programme - £300

- An initial one-hour online session, followed by monthly follow-up sessions for 3 months (4 sessions in total).
- Ongoing remote support
- 3-month access to our exercise app.

In-Person programme - £600

- 12, weekly one-to-one sessions (60 minutes each), delivered in person at our Ainsdale clinic.
- Ongoing remote support
- 3-month access to our exercise app.

STEP

3



Receive your welcome pack

Your welcome pack includes:

- A copy of the Free From Pain Exercise book & Free From Pain Information Book
- A pair of 1 kg ankle weights
- A set of resistance bands

STEP

4



Start your journey

Arrive at the clinic or join your Zoom session and start moving "Free From Pain". We will constantly measure your progress to evaluate the programme.

Helping you achieve your goals every step of the way
Meet the team behind your success



Mr. George Ampat
Consultant
Orthopaedic Surgeon



Ms. Lucia Cervera
Senior
Physiotherapist



Ms. Sarah Joseph
Physiotherapist



BONUS - PRACTICE ANYTIME

Check out a selection of our exercises on our YouTube channel.
www.youtube.com/@GeorgeAmpat



Otago Exercise
Programme



Exercises for
Neck pain



Exercises for
Lower back pain



MEASURING YOUR PROGRESS

To monitor your improvement, we will check your progress before and after the programme through a few short surveys. These will look at your pain levels, movement, confidence and overall wellbeing. You will receive the surveys online or in printed form if you prefer. They only take a few minutes to complete and help us tailor the programme to your needs.

THE UGLY SIDE OF AGING

AGE 60
WALKING
STICK



AGE 70
ZIMMER
FRAME



AGE 80
WHEEL-
CHAIR



AGE 60
WRIST
FRACTURE



AGE 70
SPINAL
FRACTURE



AGE 80
HIP
FRACTURE

THIS IS THE CYCLE THAT SOME OLDER ADULTS GO THROUGH

*Early action can help you
stay independent for longer*

SUITABLE FOR OLDER ADULTS WITH DECLINING ABILITY OR
AFTER AN OSTEOPOROTIC FRACTURE TO HELP
PREVENT FURTHER FRACTURES.



Mr. George Ampat

Consultant Orthopaedic Surgeon
Free From Pain
"A Talita Cumi Enterprise"



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