SENIOR BIOCARE

BIOMEDICAL™ HEALTHCARE
CELLULAR HEALTHCARE
NEXT GENERATION HEALTHCARE

WEEKLY REPORT

Your Cellular BioResponse Report

How your muscles, bones, gut and medicines worked together this week.

PREPARED FOR

Margaret Ellis

BMH-2026-0512 · 77 · Female

WEEK

Monday 28 September to Sunday 4 October 2026

Week ending Sunday 4 October 2026

- Muscle and bone strength
- Your trends
- Blood results
- Gut health
- Your medicines
- Nutrition
- Your plan

Your week at a glance

Patient **Margaret Ellis** ID **BMH-2026-0512** **77 · Female** Programme **Senior BioCare** Doctor **Dr Sana Qureshi**

Your goal: keep my muscles and bones strong, stay steady on my feet, and look after my gut while I take my medicines.

66
BIOSCORE

WEEK ENDING SUNDAY 4 OCTOBER 2026

Your walking and balance work are paying off. Muscle strength, vitamin D and your gut need the most support, and several of your medicines play a part in all three.

79
BioAge · actual age 77

9
medicines and supplements

12 AREAS THIS WEEK

ON TRACK · IMPROVING · WATCH · FOCUS AREA

Muscle strength — FOCUS AREA
17 kg
grip strength, goal 20 kg

Bone health — FOCUS AREA
-2.6
spine T-score, March DEXA

Gut health — FOCUS AREA
2.9
diversity, healthy 3.5 or more

Medicines — WATCH
9
medicines and supplements

Protein — FOCUS AREA
52 g
a day, goal 73 g

Fluids — FOCUS AREA
1.1 L
a day, goal 1.6 L

Steps and balance — IMPROVING
4,350
steps a day, up from 3,900

Blood pressure — IMPROVING
138/76
mmHg, down from 144/80

Blood sugar — ON TRACK
48
HbA1c mmol/mol, within your target

Sleep — ON TRACK
6h 40m
3 wakes a night

Kidneys — WATCH
58
eGFR, mildly reduced

Mood — ON TRACK
3.6
out of 5

What is working

- Steps up to 4,350 a day, with balance exercises on 3 days
- Blood pressure down to 138/76
- HbA1c 48, within your diabetes target

Your focus for next week

- Protein at every meal, about 25 g each time
- A glass of water with every meal and medicine
- Ask Dr Qureshi to review omeprazole, vitamin D and B12

Your muscle and bone strength

Are your muscles and bones staying strong?

Holding, with work to do

Your bones are protected by your weekly alendronic acid, and your walking has improved. Your grip and leg strength are close to the level where falls become more likely, and your muscle has eased down by 0.5 kg in eight weeks.

Grip strength	Chair stands (5)	Walking speed	Balance, one leg
FOCUS AREA	WATCH	WATCH	FOCUS AREA
17 kg	**14.8 s**	**0.82 m/s**	**6 s**
goal 20 kg; below 16 kg is low	faster than 15 s is good	above 0.8 m/s is good	goal 10 s
Trainer test	Trainer test	Trainer test	Trainer test

Muscle mass	Limb muscle index	Bone, spine T-score	Falls
FOCUS AREA	FOCUS AREA	FOCUS AREA	WATCH
37.1 kg	**5.4 kg/m²**	**-2.6**	**1**
down 0.5 kg in 8 weeks	healthy 5.7 or more	osteoporosis range	in the last 6 months
Bio Scale	Calculated	DEXA scan	Patient log

Muscle mass, 8 weeks

BIO SCALE

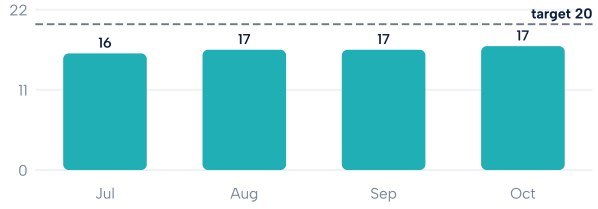
37.1 kg was 37.6 kg on 14 Aug



Grip strength, monthly

TRAINER TEST

17 kg goal 20 kg



IN PLAIN ENGLISH

Muscle and bone work as a team: strong muscles pull on bone and keep it strong, and they stop you falling. Your muscle is drifting down slowly, mainly because you eat about 52 g of protein a day when your body needs about 73 g, and because some of your medicines lower the vitamin D, magnesium and B12 your muscles rely on. Two short strength sessions a week and more protein are the most powerful things you can do.

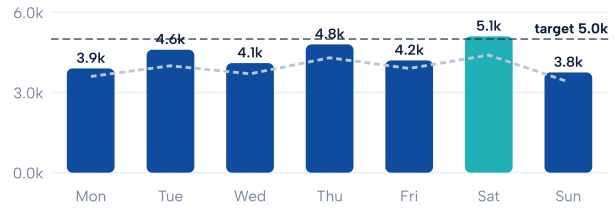
Your trends: activity, heart and sleep

This week or latest period · Previous (dashed) · Target range

Steps

BIO BAND

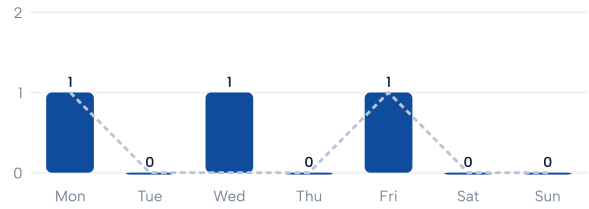
4,350 a day last week 3,900



Balance and strength sessions

PATIENT LOG

3 balance · 1 strength goal 3 balance, 2 strength

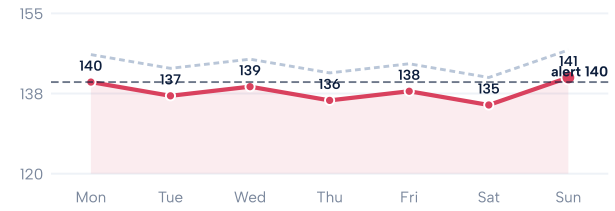


Chair-based strength on Wednesday counted with balance

Blood pressure (systolic)

BIO BAND

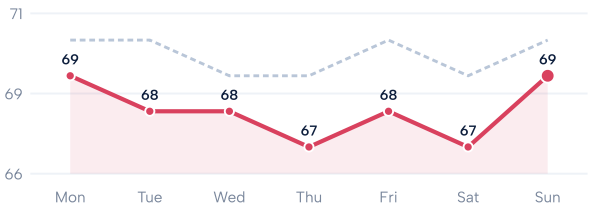
138/76 mmHg last week 144/80



Resting heart rate

BIO BAND

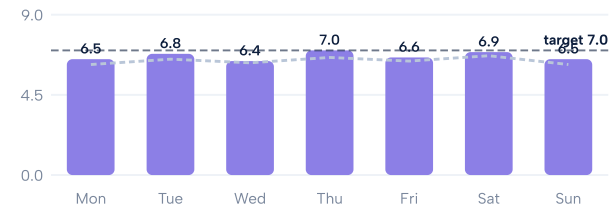
68 bpm HRV 28 ms



Sleep

BIO BAND

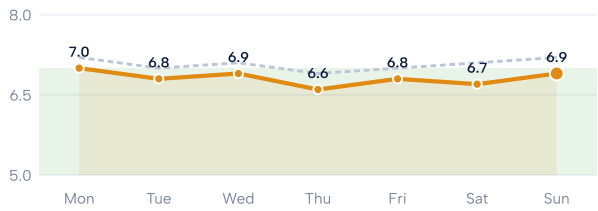
6h 40m 3 wakes a night, mostly for the toilet



Fasting glucose

GLUCOSE METER

6.8 mmol/L 7-day average



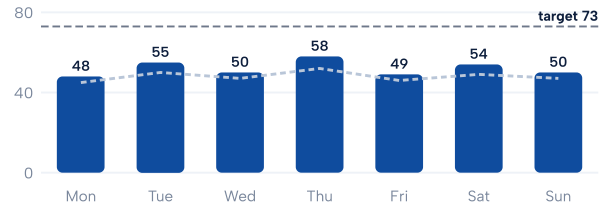
Your trends: nutrition, fluids and gut

This week or latest period · Previous (dashed) · Target range

Protein

DIET DIARY

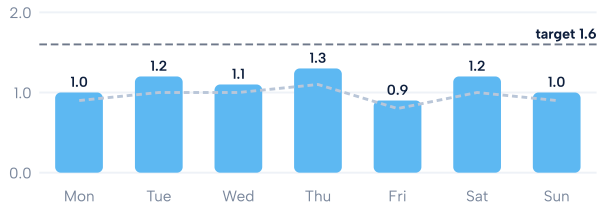
52 g a day goal 73 g (1.2 g per kg)



Fluids

PATIENT LOG

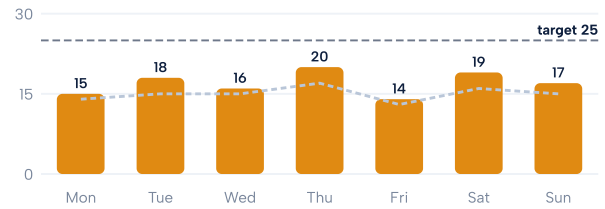
1.1 L a day goal 1.6 L



Fibre

DIET DIARY

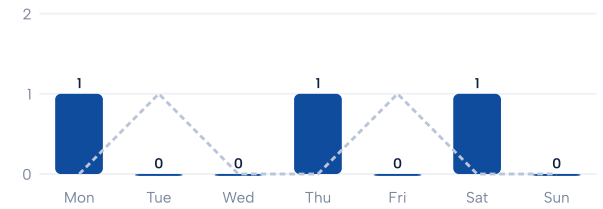
17 g a day goal 25 g



Bowel movements

PATIENT LOG

3 this week stool type 2 (hard); healthy is 3 to 4

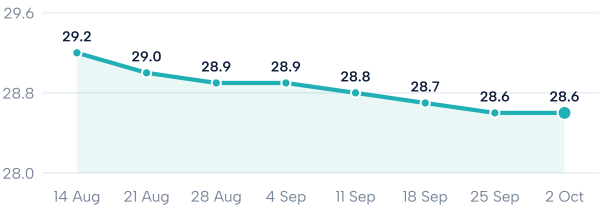


Senna used twice; Gaviscon on 4 days

Body water

BIO SCALE

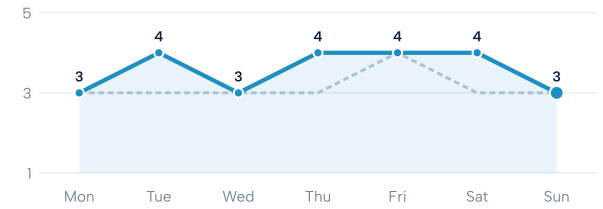
28.6 kg 46.7% of weight; healthy 45 to 60%



Mood and energy

PATIENT LOG

3.6 / 5 energy 3.1 / 5



Your blood results

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SAMPLE TAKEN	MARKERS	OUTSIDE RANGE
Monday 14 September 2026	28	6

Six results sit outside range: vitamin D, PTH, magnesium and B12 are low or raised in a pattern that fits long-term omeprazole and metformin, and kidney function is mildly reduced.

MARKER	RESULT	RANGE	STATUS	CONNECTED TO
BONE AND MUSCLE				
Vitamin D despite calcium and D3	**38** nmol/L	50 to 175	LOW	Bone · Muscle · Supplements
Parathyroid hormone (PTH) rises when vitamin D is low	**7.9** pmol/L	1.6 to 6.9	HIGH	Bone
Calcium, adjusted	**2.31** mmol/L	2.20 to 2.60	IN RANGE	Bone · Medicines
Magnesium lowered by omeprazole	**0.66** mmol/L	0.70 to 1.00	LOW	Muscle · Bone · Medicines
Alkaline phosphatase	**96** U/L	30 to 130	IN RANGE	Bone
Creatine kinase (CK) statin muscle check	**182** U/L	25 to 200	IN RANGE	Muscle · Medicines
Albumin	**37** g/L	35 to 50	IN RANGE	Diet · Muscle
BLOOD AND NUTRIENTS				
Vitamin B12 omeprazole and metformin	**168** ng/L	197 to 771	LOW	Medicines · Mood · Muscle
Folate	**6.1** µg/L	3.9 to 26.8	IN RANGE	Diet
Haemoglobin	**118** g/L	115 to 165	IN RANGE	Muscle
MCV upper end, fits low B12	**99** fL	80 to 100	BORDERLINE	Medicines
Ferritin	**34** µg/L	30 to 400	IN RANGE	Diet
SUGAR AND CHOLESTEROL				
HbA1c	**48** mmol/mol	your target 53 or less	ON TARGET	Metabolic · Medicines
LDL cholesterol	**2.1** mmol/L	below 2.6	IN RANGE	Heart · Medicines
HDL cholesterol	**1.4** mmol/L	above 1.2	IN RANGE	Heart
Triglycerides	**1.3** mmol/L	below 1.7	IN RANGE	Heart · Diet
KIDNEY, LIVER AND THYROID				
eGFR affects medicine doses	**58** mL/min	above 60	MILDLY LOW	Kidney · Medicines
Creatinine	**86** µmol/L	45 to 84	HIGH	Kidney
Sodium low end; check fluids	**134** mmol/L	133 to 146	BORDERLINE	Kidney · Medicines
Potassium	**4.4** mmol/L	3.5 to 5.3	IN RANGE	Kidney
ALT	**18** U/L	below 33	IN RANGE	Liver
TSH upper end; levothyroxine timing	**3.9** mU/L	0.27 to 4.2	BORDERLINE	Hormones · Medicines
Free T4	**13** pmol/L	12 to 22	IN RANGE	Hormones
CRP	**4** mg/L	below 5	IN RANGE	Gut

Ranges are the laboratory's adult reference ranges. Results outside range are not a diagnosis; your doctor reviews every result with you.

Your gut health

How is your gut responding to your food and medicines?

Needs support

GUT TEST
Friday 18 September 2026

Your gut bacteria are less varied than we would like, and the pattern is the one often seen with long-term omeprazole: fewer of the bacteria that feed on fibre, and more of the types that usually live in the mouth.

Diversity	Butyrate producers	Calprotectin	Bowel habit
FOCUS AREA	FOCUS AREA	WATCH	FOCUS AREA
2.9	**Low**	**62 µg/g**	**3 a week**
healthy 3.5 or more	feed the gut lining	below 50 is normal	stool type 2 (hard)

Your gut bacteria

Bifidobacterium	helps digest fibre and supports immunity	LOWER
Faecalibacterium prausnitzii	main butyrate maker; protects the gut lining	LOWER
Streptococcus and Veillonella	mouth bacteria that pass through when stomach acid is low	HIGHER
Akkermansia muciniphila	supports the gut barrier and blood sugar	NORMAL
Lactobacillus	found in yoghurt and fermented foods	NORMAL

How your medicines touch your gut

Omeprazole
Lowers stomach acid, so more mouth bacteria reach the gut and diversity falls. Long-term use is linked to C. difficile infection.

Gaviscon (antacid)
Taken on 4 days; can slow the bowel and add sodium.

Metformin
Changes gut bacteria and can cause loose stools or wind; may also lower B12.

Senna
Helpful short term; regular fibre and fluids are the long-term answer.

Alendronic acid
Can irritate the food pipe; take upright with a full glass of water.

IN PLAIN ENGLISH

Your gut needs three things: more fibre (17 g now, aim for 25 g), more fluid (1.1 litres now, aim for 1.6 litres), and a review of whether you still need omeprazole every day. Yoghurt, kefir, oats, lentils, cooked and cooled potatoes and stewed apples are gentle ways to feed the good bacteria.

Your medicines and supplements

You take nine medicines and supplements. Several of them affect your gut, the nutrients your muscles and bones need, or how well the other medicines are absorbed.

MEDICINE	YOUR GUT	NUTRIENTS	MUSCLE AND BONE	TIMING TIP
Omeprazole 20 mg each morning · 6 years Reflux (heartburn)	Lowers acid; less varied bacteria; C. difficile risk	Lowers B12, magnesium, calcium and iron absorption	Long-term use linked to fractures; low magnesium causes cramps	30 minutes before breakfast
Gaviscon Advance (antacid) 10 mL as needed · 4 days this week Heartburn after meals	Can cause constipation and bloating	Contains sodium; binds some medicines		2 hours away from levothyroxine and alendronic acid
Alendronic acid 70 mg every Sunday Osteoporosis	Can irritate the food pipe, more so with reflux	Needs good calcium and vitamin D to work	Strengthens bone	Sunday, first thing, full glass of water, stay upright 30 minutes, nothing else for 30 minutes
Levothyroxine 50 mcg each morning Underactive thyroid	Absorption lowered by omeprazole, antacids and calcium	Keep 4 hours from calcium	Right dose protects bone and muscle	On waking, 30 to 60 minutes before food
Metformin 500 mg twice daily Type 2 diabetes	Changes gut bacteria; can loosen stools	Lowers B12 over time		With breakfast and evening meal
Atorvastatin 20 mg at night Cholesterol			Can cause muscle aches; CK normal at 182	Evening
Amlodipine 5 mg each morning Blood pressure	Occasionally constipation		Ankle swelling; lowers falls risk when BP is steady	Morning
Adcal-D3 (calcium and D3) Prescribed twice daily · taken once Bone protection	Calcium carbonate can constipate	Calcium carbonate absorbs poorly with omeprazole	Supports bone and muscle	Lunch and evening meal, away from levothyroxine
Senna 7.5 mg at night · 2 nights Constipation	Short-term relief			Bedtime

Examples of how each medicine can interact with your gut, nutrients, muscle and bone. Never stop or change a medicine without speaking to your doctor or pharmacist.

How your medicines connect

Medicine, nutrient and gut map

	B12	Magnesium	Calcium	Vitamin D	Iron	Gut bacteria	Bowel	Muscle	Bone	Thyroid
Omeprazole	!	!	!		!	!		!	!	?
Gaviscon Advance							!			!
Alendronic acid			?	?					✓	
Levothyroxine			?							✓
Metformin	!					?				
Atorvastatin								?		
Amlodipine							?			
Adcal-D3			✓	✓			!		✓	?
Senna							✓			

! can lower or disturb ✓ supports ? worth checking

Margaret's medicine day

06:30	Levothyroxine with water. Sunday only: alendronic acid first, upright 30 minutes
07:30	Omeprazole, then amlodipine
08:00	Breakfast with metformin
12:30	Lunch with Adcal-D3
18:00	Evening meal with metformin and Adcal-D3
21:30	Atorvastatin; senna only if needed
As needed	Gaviscon, at least 2 hours from levothyroxine and alendronic acid

For your doctor and pharmacist

- Omeprazole for 6 years: worth a structured review of the dose and whether it is still needed, given low B12, magnesium and vitamin D, lower gut diversity and osteoporosis.
- Vitamin D 38 nmol/L and PTH 7.9 while on Adcal-D3: confirm adherence (one tablet a day taken) and consider whether a different form or dose is appropriate.
- B12 168 ng/L on metformin and omeprazole, with MCV 99: consider B12 replacement and recheck.
- Magnesium 0.66 mmol/L with cramps reported: consider checking again and the omeprazole link.
- eGFR 58: check metformin and other doses remain appropriate.
- Calcium carbonate absorbs less well when stomach acid is low; a pharmacist can advise on alternatives.

IN PLAIN ENGLISH

Your medicines are all doing important jobs. The issue is how they work together. Omeprazole and metformin can lower your B12 and magnesium; omeprazole and antacids can stop calcium and thyroid tablets being absorbed; and calcium and antacids can make constipation worse. Taking each at the right time, and asking Dr Qureshi to review the ones flagged, can help your muscles, bones and gut at the same time.

Your nutrition

Daily average this week

Energy		**1,420** / 1,550 kcal
Protein		**52** / 73 g
Fibre		**17** / 25 g
Fluids		**1.1** / 1.6 L
Calcium (food)		**640** / 700 mg
Added sugar		**18** / 30 g

Calcium from food 640 mg plus 600 mg from Adcal-D3 gives about 1,240 mg a day, which meets the 1,200 mg aim.

Key nutrients

Vitamin D		**3.1** / 10 mcg
Vitamin B12		**1.9** / 2.4 mcg
Magnesium		**210** / 270 mg
Potassium		**2300** / 3500 mg
Iron		**8.1** / 8.7 mg
Zinc		**6.2** / 7 mg
Omega-3		**0.6** / 1.1 g
Sodium		**2.6** / 2.4 g

A typical day this week

Breakfast	**Tea, toast and marmalade**	8 g protein
Lunch	**Soup and a bread roll**	10 g protein
Snack	**Biscuits and tea**	2 g protein
Evening	**Chicken, potatoes and peas**	32 g protein

Food and medicine

Breakfast is the gap
Only 8 g of protein. Adding an egg or Greek yoghurt brings it to about 20 g.

Calcium and thyroid
Keep milk, yoghurt and Adcal-D3 at least 4 hours from levothyroxine.

Fibre and fluids together
More fibre without more water can make constipation worse; increase both slowly.

Hidden salt
Soup, bread and Gaviscon add sodium; 2.6 g against a 2.4 g limit.

IN PLAIN ENGLISH

Most of Margaret's protein comes in the evening, so her muscles go short for most of the day. Spreading about 25 g of protein across breakfast, lunch and dinner, adding a glass of water to each meal, and swapping biscuits for yoghurt or nuts would support her muscles, bones and gut together.

Body composition and fitness

Body composition · Bio Scale

Weight	**61.2 kg**	ON TRACK	BMI 23.9
Body fat	**36.0%**	WATCH	fat mass 22.0 kg
Visceral fat	**9**	WATCH	rating; aim below 10
Muscle mass	**37.1 kg**	FOCUS AREA	down 0.5 kg in 8 weeks
Skeletal muscle	**21.4%**	FOCUS AREA	
Limb muscle index	**5.4 kg/m²**	FOCUS AREA	healthy 5.7 or more
Fat-free mass	**39.2 kg**		
Bone mass	**2.1 kg**	WATCH	scale estimate
Body water	**28.6 kg**	WATCH	46.7%
Protein	**13.9%**	WATCH	
BMR	**1,105 kcal**		

Fitness and strength tests

Grip strength	**17 kg**	FOCUS AREA	goal 20 kg
5 chair stands	**14.8 s**	WATCH	under 15 s
Walking speed	**0.82 m/s**	WATCH	above 0.8
One-leg balance	**6 s**	FOCUS AREA	goal 10 s
Timed up and go	**12.6 s**	WATCH	under 12 s
Steps	**4,350**	IMPROVING	goal 5,000
DEXA spine	**-2.6**	FOCUS AREA	March 2026
DEXA hip	**-2.1**	WATCH	osteopenia range

SOURCE Trainer tests 1 Oct · DEXA March 2026 · Bio Band

Muscle and fat, 8 weeks

BIO SCALE

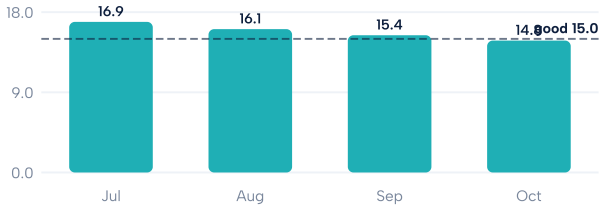
37.1 kg muscle fat 22.0 kg, steady



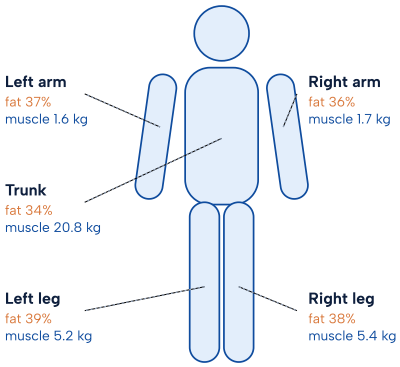
Chair stand time

TRAINER TEST

14.8 seconds lower is better



Segmental analysis



Estimated from one whole-body reading; best used to compare left and right and to track change.

IN PLAIN ENGLISH

Margaret's legs carry less muscle than her trunk, and her left leg is slightly weaker than her right, which matters for balance. Her chair stand time has improved from 16.9 to 14.8 seconds since July, so the exercises are working.

How everything connects

Each line links a medicine, food habit or activity to a result in Margaret's blood, gut, muscle or bone.



Helping · Needs attention · Waiting for a result or worth checking

The chain to watch

Omeprazole	less stomach acid
Lower absorption	B12, magnesium, calcium
Muscle and bone	cramps, weakness, fracture risk
Gut	fewer fibre-loving bacteria

What will help most

Medicine review	omeprazole, vitamin D, B12
Protein	25 g at each meal
Fluids and fibre	1.6 L and 25 g a day
Exercise	2 strength, 3 balance sessions

Guidance for your BioCare Team and your plan

Doctor

Dr Sana Qureshi, Internal medicine

- Consider a structured omeprazole review (6 years; low B12, magnesium and vitamin D; gut diversity 2.9; spine T-score −2.6).
- Vitamin D 38 and PTH 7.9 on Adcal-D3, which is being taken once rather than twice a day. Discuss adherence and options.
- B12 168 with MCV 99 on metformin; consider replacement and recheck in 3 months.
- eGFR 58: review metformin dose and nephrotoxic medicines. Sodium 134 at the low end with low fluids.
- One fall in 6 months, grip 17 kg, gait 0.82 m/s: sarcopenia and falls risk worth formal assessment.

Nutritionist

Ritu Desai, BioMedical Nutritionist

- Protein 52 g against 73 g (1.2 g/kg). Target 25 g at each meal; breakfast is the main gap at 8 g.
- Fibre 17 g and fluids 1.1 L with hard stools. Increase both gradually: oats, lentils, stewed fruit, and a glass of water with every meal and medicine.
- Vitamin D food intake 3.1 mcg: oily fish twice a week, eggs, fortified milk.
- Keep dairy and calcium at least 4 hours from levothyroxine; keep alendronic acid morning food-free for 30 minutes.

Personal trainer

Arjun Mehta, BioMedical Fitness Trainer

- Grip 17 kg, chair stands 14.8 s, gait 0.82 m/s, balance 6 s. Two progressive strength sessions a week: sit-to-stand, wall press, step-ups with support, band rows.
- Balance on 3 days: heel-to-toe walk at the kitchen counter, single-leg stand with support, building to 10 s.
- Left leg muscle 5.2 kg against right 5.4 kg: add a few extra left-side reps.
- Osteoporosis: avoid loaded spinal flexion and twisting; use weight-bearing walking and resistance work.

THREE GOALS FOR NEXT WEEK

- ☐ **25 g of protein at breakfast** — egg, yoghurt or milk
- ☐ **A glass of water with each meal** — aim for 1.6 L a day
- ☐ **Two strength sessions** — plus balance on 3 days

Medicine review
Thu 8 Oct, 10:00
Dr Sana Qureshi

Blood recheck
Mon 14 Dec
vitamin D, B12, magnesium

Next DEXA
March 2027
annual bone scan

This sample report uses illustrative data to show how the Cellular BioResponse Report works for this programme. Guidance is drafted for your care team to review; it supports and does not replace your consultations. Never stop or change a medicine without your doctor. If you feel unwell, contact your doctor or emergency services.