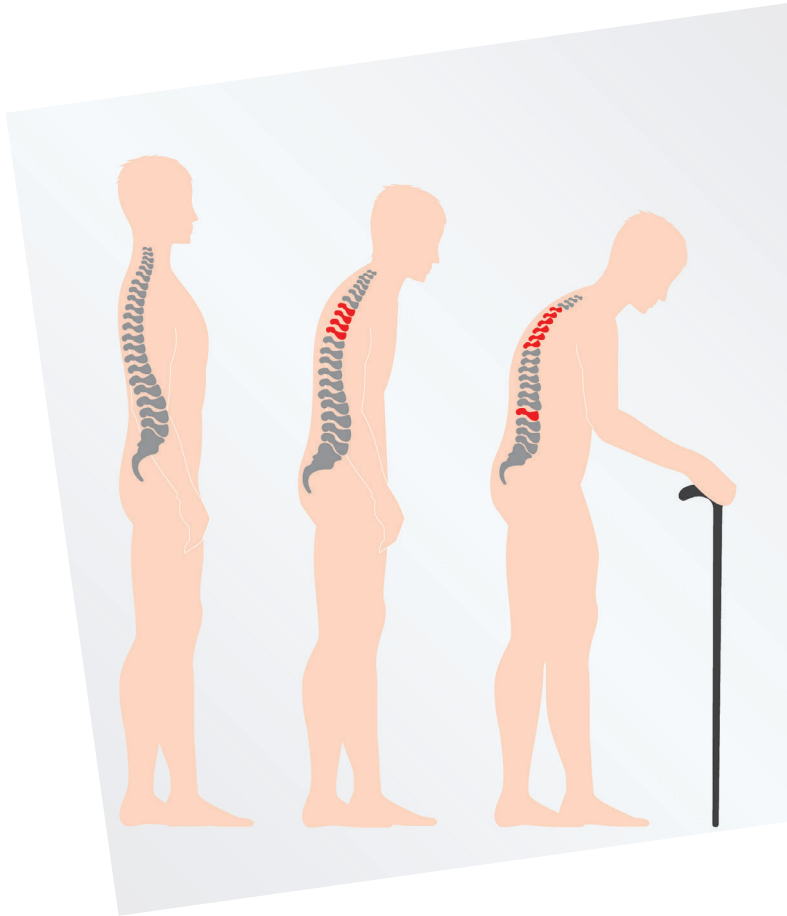


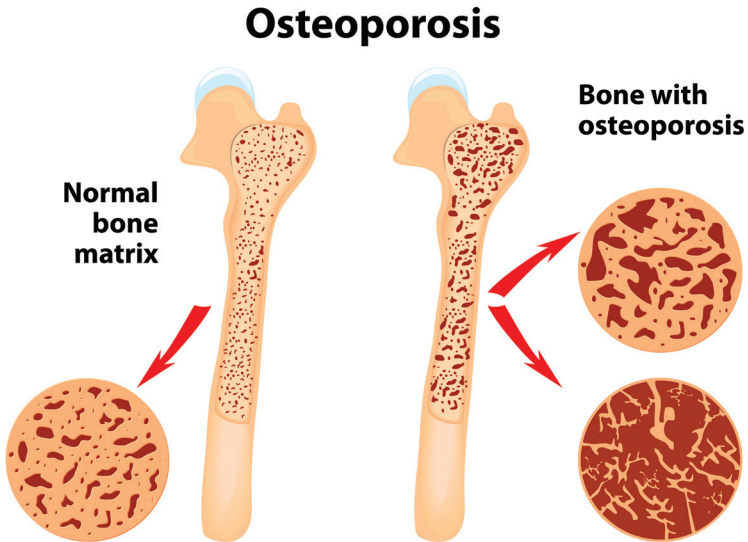
Osteoporosis



The Diabetes, Endocrine & Metabolism Centre offers one-stop accessible care to patients and is staffed by experienced endocrinologists, diabetes nurse educators, podiatrists and dietitians to manage patients' diabetes, thyroid problems, obesity and other related disorders. Patients with lipid, calcium and bone disorders, pituitary disorders, adrenal disorders and endocrine hypertension can approach us to find out more.

What is Osteoporosis?

Osteoporosis is a condition where the bones are weak and fracture easily.



What causes Osteoporosis?

With age, living tissue like bones break down more easily than they are formed to cause bones to become porous and brittle.

Women are at higher risk than men because of menopause, which leads to a higher chance of bone break down.

Risk factors of Osteoporosis

You are at higher risk if:

- Another member of your family is/was diagnosed with Osteoporosis
- Your parent fractured a hip bone
- You are very thin
- You have previously fractured your bones after falling from your own standing height
- You are often immobile for long periods
- You do not eat enough calcium and Vitamin D
- You consume alcohol excessively
- You smoke
- You developed menopause before 45 years old
- You take certain medications, e.g. steroids
- You have been diagnosed with certain medical conditions, e.g. thyroid disease, rheumatoid arthritis, liver, or kidney problems

How is Osteoporosis diagnosed?

A bone density scan, or a dual energy X-ray absorptiometry/DXA scan can be used to measure the strength of your bones. It is painless and uses a very small amount of radiation. The whole procedure lasts 15 minutes. Osteoporosis is diagnosed when the bone mineral density (BMD) is low.

Who should go for DXA scans?

- Women after menopause with risk factors for Osteoporosis
- Men above 50 years old with risk factors for Osteoporosis
- Women above 65 years old without risk factors for Osteoporosis
- Men above 70 years old without risk factors for Osteoporosis
- Women with high Osteoporosis Self-Assessment Tool (OSTA) risk scores.
A risk score is calculated by subtracting the weight (kg) from age (year).

Understanding the OSTA score

OSTA Risk Score	Osteoporosis Risk	DXA scan
>20	High	Recommended
0-20	Moderate	Consider based on other factors
<0	Low	Not recommended

What can I do to prevent Osteoporosis?

A healthy lifestyle can prevent Osteoporosis.

- Consume a diet with adequate calcium and Vitamin D
- Include regular weight-bearing exercises such as walking, jogging, and light gardening to stay active
- Avoid falls
- Quit smoking
- Limit alcohol intake

Top 10 calcium-rich food to build strong bones



Milk



Yogurt



Soya Beans



Orange



Lady's Finger



Cheese



Turnip Greens



Sesame Seeds



Almonds



Cinnamom

A healthy adult needs to consume 800 to 1000mg of calcium daily. The table on the next page shows the calcium content found in common food.

Calcium content of common food sources

	Source	Serving Size	Calcium (mg Per Serving)
	Milk and Milk products		
	Low-fat yogurt	1 carton (200g)	420
	Low-fat milk	1 glass (250ml)	300
	Cheese	1 slice (20g)	130
	Fish/Meat/Beans/Nuts		
	Dried ikan bilis (with bones)	2 tablespoons (40g)	240
	Soya beans (cooked)	1 mug (180g)	190
	Canned sardines (with bones)	1 fish (50g)	190
	Beancurd, firm (tau kwa)	1 small cake (90g)	150
	Almonds	¼ mug (40g)	100
	Dhal (raw)	¼ mug (50g)	85
	Soya beancurd with syrup (tau huay)	1 bowl (620g)	380
	Beancurd, silken (tofu)	2 squares (170g)	50
	Roasted peanuts, without shell	¼ mug (60g)	30
	Egg	1 (50g)	30
	Soya bean drink	1 glass (250ml)	25
	Fruit/Vegetables		
	Dried figs	5 whole (95g)	240
	Kailan, cooked	¾ mug (100g)	195
	Spinach (bayam), cooked	¾ mug (100g)	140
	Chye sim, cooked	¾ mug (100g)	135
	Beans (long, french), cooked	¾ mug (100g)	50
	Broccoli, cooked	¾ mug (100g)	50
	Apricot, fried	¼ mug (60g)	40
	Papaya	1 wedge (130g)	40
	Raisins	¼ mug (60g)	30
	Green peas, cooked	¾ mug (100g)	30
	Calcium-fortified products		
	High-calcium milk powder	4 scoops (25g)	450
	High-calcium soya bean milk	1 glass (250ml)	450
	Egg noodles	1 portion (100g)	210
	Wholemeal bread	2 slices (60g)	120

Vitamin D increases calcium absorption from the small intestine and food high in it include cod liver oil, egg yolks, salmons, mackerel, and sardines. Sunlight helps the body to produce Vitamin D and 15 minutes of sunlight a day is sufficient for the body to produce Vitamin D. Healthy adults need between 400 to 800IU of Vitamin D a day.

Exercise improves muscle and bone strength as well as the body's balance. The recommended frequency and duration of exercise is 30 minutes a day for 5 or more days a week. Weight-bearing exercises strengthen the bones and include walking, jogging, dancing, and Tai Chi. Resistance exercise like strength training also improves muscle strength. Before embarking on an exercise, it is best to consult a doctor.



Falls prevention

Fractures can be avoided if we do our best to prevent falls. Assistive aids (walking sticks, hand rails, grab-bars and anti-slip mat) and well-fitting shoes with non-skid soles can prevent falls.

Modifying your home to improve the lighting and removing obstacles can also lower your risk of falling at home.



Treatment

The following can be used to treat Osteoporosis:

- Calcium and Vitamin D supplements
- Bisphosphates
- Denosumab
- Selective Estrogen Receptor Modulators
- Hormone Replacement Therapy
- Calcitonin
- Recombinant Human Parathyroid Hormone
- Strontium Ranelate

Your doctor may prescribe any of these to help you manage your condition.

Notes:

Notes:

For more information

Ng Teng Fong General Hospital and Jurong Community Hospital

1 Jurong East St 21, Singapore 609606

www.ntfgh.com.sg | www.jch.com.sg

Clinic opening hours

Monday – Friday: 8.30am – 5.30pm

Saturday: 8.30am – 12.30pm (Selected clinics only*)

Dental Clinic: Monday – Thursday: 8.00am – 5.30pm, Friday: 8.00am – 5.00pm

*Please refer to our websites for more details.

General enquiries & appointments

General enquiries line: 6908 2222 (24-hr)

Fax: 6716 5500 | Email: contactus@nuhs.edu.sg

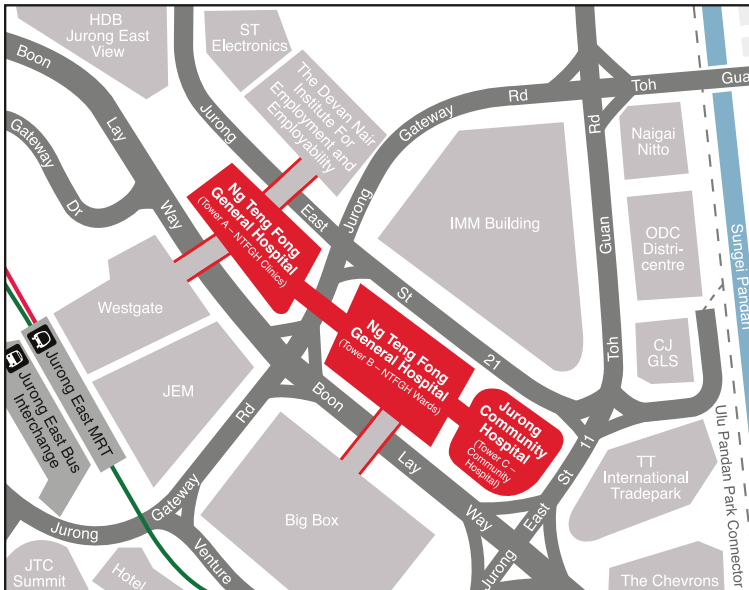
Appointment line: 6908 2222 (Monday – Friday: 8.00am – 5.30pm, Saturday: 8.00am – 12.30pm)

Fax: 6716 2200 | Email: appointment@nuhs.edu.sg

Dental appointment line: 6716 2233 (Monday – Friday: 8.00am – 5.30pm)

Fax: 6716 2200 | Email: JHCampus_Dental@nuhs.edu.sg

Getting there



By train

Alight at Jurong East MRT Station

By bus

Jurong East Bus Interchange

41, 49, 51, 52, 66, 66B, 78, 78A, 79, 79A, 97, 97E, 98, 98M, 105, 143, 143M, 160, 160A, 160M, 183, 183B, 197, 333, 334, 335, 506

Along Boon Lay Way

49, 99, 333, Private bus service 625, 990

Disclaimer:

The information in this brochure is meant for educational purposes and should not be used as a substitute for medical diagnosis or treatment. Please seek your doctor's advice before starting any treatment or if you have any questions related to your health, physical fitness or medical condition. Information is accurate at the time of printing.