

Department of  
**Geriatric Medicine**

# Frailty in Older Adults: What You Need to Know



# What is Frailty?

Frailty is a health state common amongst older people where there is **reduced ability for the body to withstand health-related stresses**. It is a warning sign for one to seek medical help early.

## How Does Frailty Affect Our Health?

Frailty is associated with increased **tiredness, unintentional weight loss, and even muscle loss and weakness**. It may also increase the risk of disability, hospitalization, and even death.

## How Can We Treat and Prevent Frailty?

Early identification of frailty is important as it will help healthcare & social service professionals take timely actions.

### Physical Well-being



- Provide treatment and control for chronic medical conditions.
- Address vision and hearing problems.
- Review and adjust medications.
- Ensure adequate nutrition and physical activity.
- Identify and treat potentially reversible medical illnesses.



### Psychological Well-being

- Look out for problems of low mood and receive timely treatment.
- Look out for memory difficulties and address them appropriately.



### Social Well-being

- Remain active by engaging in social activities.

## How Can Exercise and Physical Activity Help You to Prevent Frailty?

One of the best ways to prevent frailty and maintain your function is through **regular exercise** and **physical activity**. You can start to keep active at any age, and still enjoy the benefits. Exercise can help you maintain your **stamina, flexibility, strength and balance** that you may need to carry out your daily activities and routines.

## Easy Exercises to Prevent Frailty

Try these 7 easy exercises developed by the Health Promotion Board (HPB) for at least **two times a week**.

Do speak to your doctor before starting a new exercise program.

### Warm-up

**Purpose:** Warms up the body and joints to prepare for more strenuous exercises. Also helps to **improve stamina** and **reduce tiredness** when doing daily activities like walking and chores.

### 1. Stationary March with Arm Swing/Seated March

- Hold on to a stable support if needed.
- Lift your legs up and march on the spot with alternating legs.
- Continue for 1 minute, up to three sets.
- Alternatively, perform this exercise in a seated position.



**1. Stationary March with Arm Swing/Seated March**

## Strength Exercises

**Purpose:** Strengthens the muscles in the hips and the front thighs, and helps with movement such as getting up from a chair or bed.

### Strength Exercises



**2. Sit to Stand**



**3. Standing Hip Extension**

### 2. Sit to Stand

- With arms extended forward or using hands to push yourself off the chair, lean forward over the knees and stand up tall.
- Perform 10 repetitions, up to three sets.

### 3. Standing Hip Extension

- Hold on to a stable support if needed.
- Keep your leg straight and lift it backwards.
- Slowly return to standing position.
- Perform 10 repetitions on each leg, up to two sets.

## Balance Exercises

**Purpose:** Improves balance and stability during everyday tasks and movements such as walking, stepping over obstacles, and climbing stairs.

### Balance Exercises



**4. Side Leg Raise**



**5. Single Leg Stand**

#### 4. Side Leg Raise

- Hold on to a stable support if needed.
- Keep your leg straight and lift it sideways from the floor.
- Slowly return to standing position.
- Perform 10 repetitions on each leg, up to two sets.

#### 5. Single Leg Stand

- Hold on to a stable support, if needed.
- Stand on one leg and try to hold this position for 10 seconds.
- Place the foot down.
- Perform five repetitions on each leg, up to two sets.

### Flexibility Exercises

**Purpose:** Stretches the upper arm muscles (triceps) and improves shoulder range of motion to help with everyday movement such as combing hair.

#### 6. Triceps Stretch

- Sit up straight.
- Raise your left elbow and reach towards your upper back.
- Pull your left elbow with your right hand gently and hold this position for 20 seconds.
- Perform two repetitions on each arm.

#### Flexibility Exercise



#### 6. Triceps Stretch

## Cool Down

**Purpose:** Stretches the front thigh (quadriceps) muscles to reduce muscle aches after exercise and allows heart rate to return gradually to normal rate.

### 7. Standing Quadriceps Stretch

- Hold on to a stable support.
- Pull the heel towards buttock until a stretch is felt along the front thigh muscles.
- Try to hold this position for 30 seconds.
- Perform two repetitions on each leg

Cool Down



### 7. Standing Quadriceps Stretch

## Keep Yourself Active

- Scan the QR code on the right to download **Health Promotion Board's** step-by-step guide and exercise videos in 4 different languages.
- **You can also stay active by doing aerobic exercises**  
E.g. Walking, cycling or swimming.
- **Do at least 10 minutes of moderate to intensity exercises, two to three times a week.** You should be able to talk but not sing when performing the activity.
- **Start slow and build up overtime**  
Try 10 minutes of walking daily and increase the duration as you get more used to it.
- **Exercise with a buddy**  
It will help to maintain your exercise routine and make the exercising process fun!
- **Avoid long periods of sitting**  
Go for a short walk around your house during TV commercials.
- **Include exercise or physical activity into your daily routine**  
Try walking to the market instead of taking the bus, or climbing the stairs instead of the lift.





# Community Exercise Programmes

- **Day care, Day rehabilitation and Senior Activity Centre (SAC)** offers **structured activities and rehabilitation programmes** for older adults living nearby.
- Scan the QR code below for an informational video on Day Rehabilitation Centres, or speak to your doctor/nurse/therapist for more information.



## Gym Tonic

- **Gym Tonic** is an effective and proven strength training programme that uses advanced equipment and software to improve the physical abilities of older adults.
- Scan the QR code on the right to visit the Gym Tonic website, or speak to your doctor/nurse/therapist for more information.



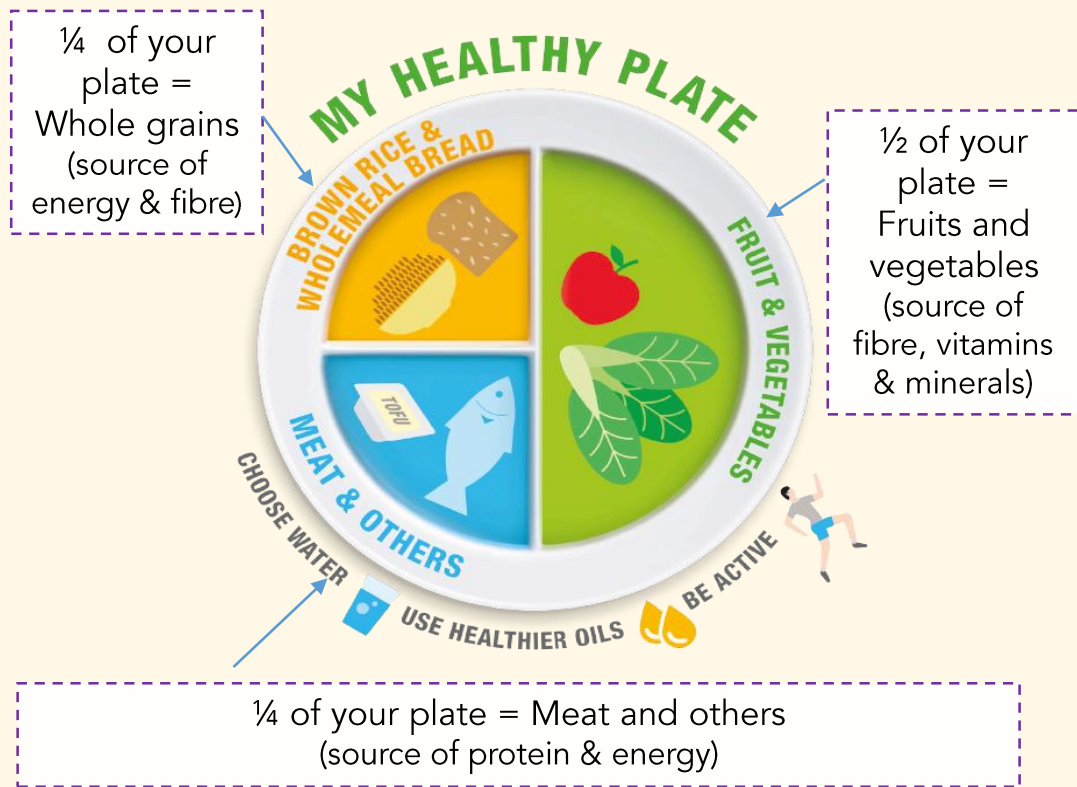
# Nutrition & Ageing

Adequate nutrition is important in the prevention and management of frailty. Having adequate amount of nutrition helps to maintain muscle strength and preserve bone mass, reducing the risk of falls and fractures. Older persons who are more well nourished tend to fall sick less often and recover faster.

## Eating Right for Healthy Ageing

### 1) Eat a variety of foods and maintain a balanced diet.

- Choose a variety of foods within and across food groups to get a variety of nutrients in your diet.
- Use My Healthy Plate as a guide to help you create a balanced meal.

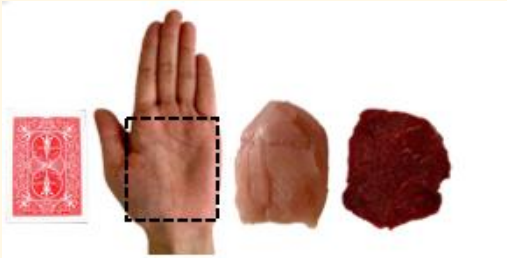




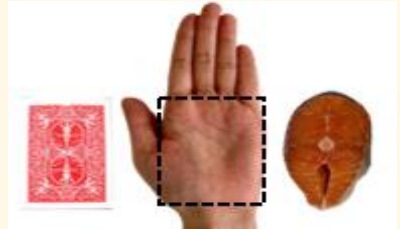
## 2) Include high protein foods in every meal.

- Adequate protein intake is important to maintain muscle mass.
- Ideally, try to take protein foods immediately after exercise.
- Include animal sources of protein in your diet.
- Have two to three servings of dietary proteins daily.

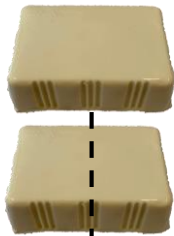
### Examples of 1 serving



**Meat (Chicken/Pork/Mutton/Beef)**  
1 palm size (90g = 120g raw)



**Fish**  
1 palm size (90g = 120g raw)



**Silken Tofu**  
1.5 small blocks  
(1 block = 300g)

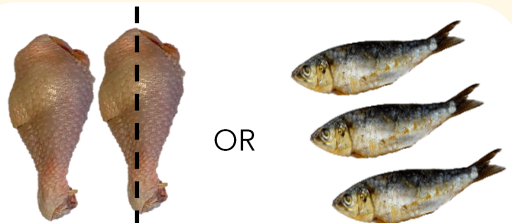
OR



**Tau Kwa**  
1 piece  
(1 piece = 200g)



**Beans/Lentils**  
1.5 cups  
(270g cooked)



OR  
1.5 Drumsticks  
or  
3 Small Kuning Fish

## How 1 protein serving looks like in a meal



Mixed rice with 1 palm size meat/fish

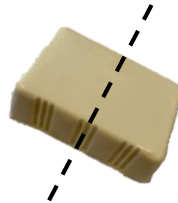
OR



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1 Bowl of porridge + 1 Egg + ½ Block of tofu + 1 Cup low fat cow's milk/ soymilk







### 3) Include whole grains, fruits and vegetables in your daily diet.

- Diet quality is important. **Inadequate micronutrients intake has been associated with higher risk of frailty.**
- Whole grains, fruits and vegetables are rich in vitamins and minerals. They are also high in fibre, which is important for good bowel health.
- Include **2 servings of fruits** and **2 servings of vegetables** in your diet.



## 4) Include high calcium and vitamin D foods in your daily diet.

- Calcium and vitamin D help to **keep your bones strong**.
- **1000mg of calcium and 800 IU of vitamin D** are recommended daily.
- 1 star ★ represents 100mg of calcium. Aim to achieve 10 stars a day by consuming a variety of food.
- Food sources for vitamin D includes oily fish (e.g. salmon, mackerel, cod), eggs, margarine and fortified cereals, fortified dairy (milk, cheese, yoghurt) and fortified soy milk.

	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">             1 Glass of high-calcium low fat milk (250ml) / 4 scoops powder         </div> <div style="text-align: center;"> <p>or</p>             1 Glass of high-calcium soy milk (250ml)         </div> </div>
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">             1 Piece of canned low sodium sardine (70g)         </div> </div>
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">             1 Small tub of low fat yoghurt (100 – 150g)         </div> <div style="text-align: center;"> <p>or</p>             1 Slice of low fat cheese (20g)         </div> </div>
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">             1 Square piece of tau kwa (100g)         </div> <div style="text-align: center;"> <p>or</p>   <math>\frac{3}{4}</math> Mug of cooked chye sim (100g)         </div> </div>
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">   <math>\frac{1}{2}</math> Block tofu (150g)         </div> </div>

# Know Your Risk of Malnutrition

If you experience **poor appetite** or have been eating less than normal over long periods of time, this may lead to malnutrition and muscle loss. You may be at risk if you have one of the following:

✓ Unintentional weight loss

(3kg or more in the past 3-6 months)



✓ Eating less than ½ of your usual intake (in the past 5 days or more)



## Tips on Improving Food Intake

1) **Have six small, frequent meals instead of three large meals.**

Eat more when your appetite is good.

2) **Choose softer foods and moisten foods with gravies.**

3) **Schedule fluid intake after meals**

Too much fluids with meals may make you feel full faster.

4) **Include high protein, high energy snacks and fluids between meals**

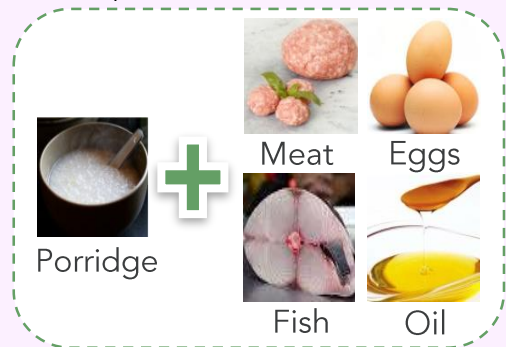
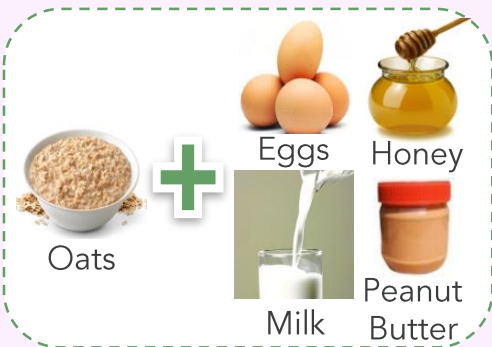
E.g. Dim sum, red bean paste, milk shakes, and soy milk.

5) **Prepare attractive and flavourful meals**

Use a variety of ingredients, herbs and spices.

6) **Increase the energy and protein content of your meal**

You can do this without increasing the food portion.



**You are Strongly Encouraged to Consult Your Doctor if You Experienced Persistent Unintentional Weight Loss.**



## Department of Geriatric Medicine

Tan Tock Seng Hospital

### Contact:

6357 7000 (Central Hotline)



Scan the QR Code with your smart phone  
to access the information online or visit  
<http://bit.ly/TTSHHealth-Library>

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