

AGING GRACEFULLY WITH THE RIGHT NUTRITION

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Introduction

Elderly people above the age of 65 years old, with good nutritional status are more than 2 times likely to age successfully

Data from the GRP Singapore Longitudinal Ageing Studies

Ng TP, Broekman B, Niti M, Kua EH. Determinants of successful aging using a multidimensional definition among Chinese elderly in Singapore. Am J Ger Psychiatry 2008.

Importance of the right nutrition

- Malnutrition in elderly
 - defined as a state of macro and micro nutrient deficiencies
 - Notable changes in weight and hydration status
 - Loss of muscle mass
 - Poor oral health
 - Functional decline in performing activities of daily living.
- Likelihood of chronic diseases like diabetes, heart diseases, high blood pressure

Causes of malnutrition

Physiological issues	Socioeconomic issues
A. Loss of appetite	A. Social isolation
B. Changes in gastrointestinal function	B. Low income
C. Poor dentition	C. Food insecurity
D. Swallowing impairment	
E. Decline in cognitive function	

Special considerations for older adults



1. Adequate calories
2. Protein
3. Bone health: Calcium and Vitamin D
4. Constipation: Fibre and Water

Practical interventions

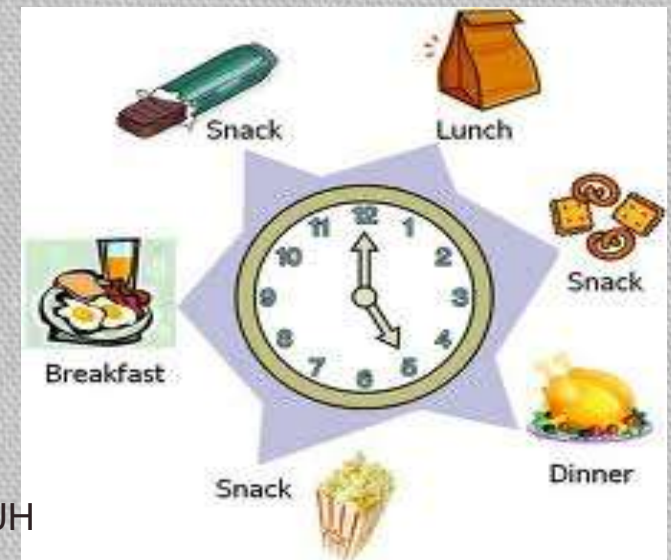
Monitor weight and oral intake

- Weigh regularly (i.e. once every 1-2 weeks)



Small but frequent meals

- If experiencing loss of appetite;
- Or nausea/vomiting



Practical interventions

High energy high protein snacks



Red Bean Soup



Tuna egg sandwich



Creamy banana oats



Yoghurt



Sweet potatoes



Chicken/Char Siew Pao

- **Encouraged to take in between meals**

Practical interventions

Protein foods



MY HEALTHY PLATE

BROWN RICE &
WHOLEMEAL BREAD



FRUIT & VEGETABLES



MEAT & OTHERS



CHOOSE WATER



USE HEALTHIER OILS



BE ACTIVE



Practical interventions

Meal fortification (to increase calories)



- Spread thick layer of margarine or peanut butter on breads
- Cheese/eggs with bread
- Add 1 tablespoon healthy oils (i.e. Olive, Sesame, Canola) to meals/sauces

Practical interventions

Nourishing fluids



- Provides additional calories/energy
- Avoid drinking and eating at the same time
- Milkshakes, juice, cream soup, full cream or flavoured milk



Practical interventions

Oral Nutritional Supplements



- Prevention/Treatment of malnutrition
- To boost calorie and protein intake
- Higher calorie/protein as compared to normal milk/juice products

Practical interventions

Social factors



- Eating alone VS eating in the presence of others

Swallowing difficulties



- Thickener in fluids
- Modified consistency of diet (i.e. chopped diet, pureed/blended diet)

Practical interventions

Chewing difficulties



- More fluids to cooking
- Chop food into smaller pieces and cook them longer
- Replace meats with tofu, eggs, minced meat
- Soft fruits like papaya, mango or banana
- Visit a dentist

Bone Health

Calcium



- Bone strength
- Bone density

Vitamin D



- Increases absorption of calcium
- Muscle function

Practical interventions

Calcium (1000mg/day)

**Singapore Health promotion Board Recommended Dietary Allowance*

Scenario 1



1 cup low
fat milk
(300mg)



1 block
silken tofu
(270mg)



1/2 a can of
sardine fish –
80 g (270mg)



1/2 plate
chye sim
(280mg)

= 1120 mg

Practical interventions

Calcium (1000mg/day)

**Singapore Health promotion Board Recommended Dietary Allowance*

Scenario 2



1 cup high
calcium
soybean milk
(450mg)



2 slices
enriched
bread
(100mg)



1 small cake
tau kwa
(150mg)



1/2 plate
kai lan
(400mg)

= 1100 mg

Practical interventions

Vitamin D (100 IU/day)

** Singapore Health promotion Board Recommended Dietary Allowance*



**3 matchbox
size 90g
cooked salmon
(447 IU)**



**1 cup
fortified
milk (120
IU)**

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**1 egg yolk
(42 IU)**



**Recommended
5 – 30 minutes
of sunlight
daily**

Practical interventions

Sources of Fibre



Fruits



Vegetables



Beans & Lentils



Brown Rice



**Wholegrain
Breads**



**High Fibre
Cereals**



Oats

Practical interventions

How To Increase Fibre

- Have a serve of vegetables at each meal
- Keep skin on fruits
- Replace snacks with a serve of fruit
- Choose wholegrain products instead of refined ones



Practical interventions

Prevent dehydration

- 6-8 glasses of non-alcoholic fluids daily
- 1.5 – 2 litres per day

**** Caution**

- *Poor heart function*
- *Kidney disease*

Practical interventions

Fluids:

- **Water**
- **Soup**
- **Jelly**
- **Yoghurt, ice cream and custard**
- **Coffee/Tea**
- **Milk, Milo and Horlicks**
- **Juice**
- **Diet soft drink and cordial**



Key Principles

1. Do not skip meals, aim for at least three main meals daily
2. Sufficient calories for weight maintenance
3. Ensure adequate protein foods such as lean meats, fish, tofu, beans, dairy products and eggs
4. Focus on high calcium and vitamin D sources
5. Two servings of vegetables and two servings of fruits daily
6. Nourishing fluids
7. Encourage eating with family members and/or friends

Thank you for your attention