

Wasting away on Tea and Toast

Mental Health and Falls Prevention Workshop
2017

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True or False? In relation to older people:-

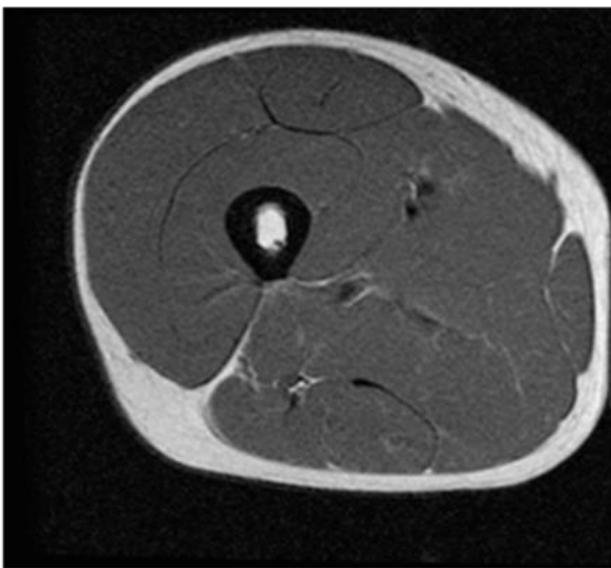
- Losing weight is acceptable part of ageing
- It is better to be thin than overweight in old age
- “Not doing much” means not much food is needed
- Protein requirements are less than younger people
- Dairy products should be avoided to manage heart disease
- Obesity and malnutrition can exist at the same time
- Convenience & frozen foods have little nutritional value



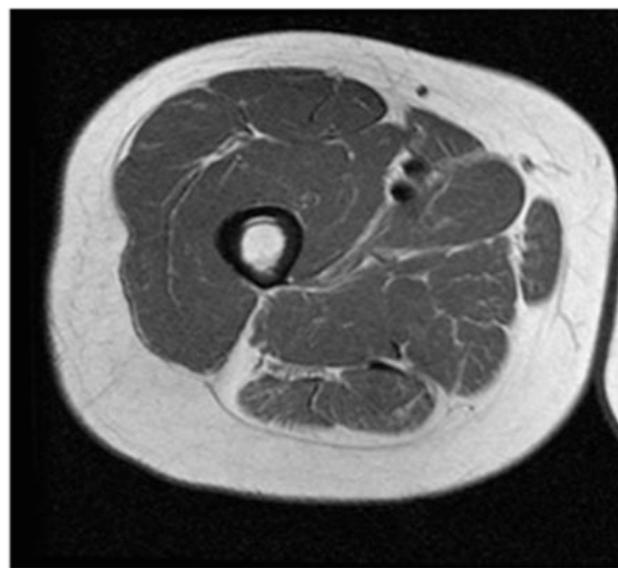


Sarcopaenia

- Lose approximately 1% of muscle mass every year from age 50
- Results in a gradual decline in muscle mass and muscle strength
- Major contributor to functional impairment and loss of independence
- May be unrecognised because muscle is replaced by fat or connective tissue
- Can have sarcopenic obesity

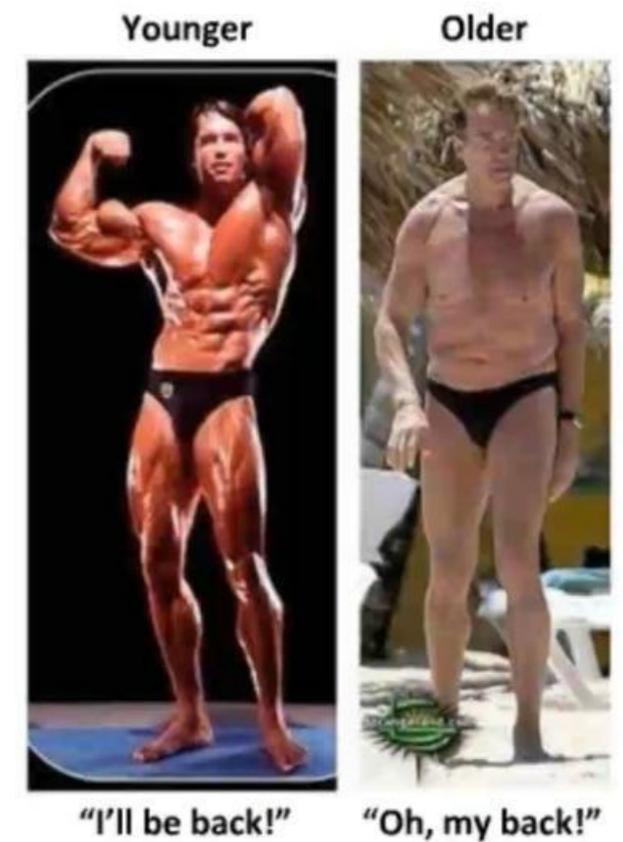


Age 25



Age 63

Same weight
Different shape



Why is muscle important?

- Major reserve of protein and energy in times of stress and malnutrition
- Muscles move us and provide stability to the joints
- Enables activities necessary for daily living
- Reduces the risk of falls and injury
- Helps maintain bone strength to prevent and or reduce the problems associated with osteoporosis
- Protects the body tissues

Body fat is also important

- Acts as a storage (reserve) of calories
- Thermoregulation. Hot vs. too cold, due to losing layer of fat
- Fat is good hip protector

Causes of sarcopaenia

- Age
- Malnutrition (Insufficient calories and protein)
- Yo-yo dieting
- Lack of exercise, illness, inactivity, chronic disease
- Smoking and some medications

Consequences of sarcopaenia

- Low muscle strength
 - Slow gait speed
 - Increased risk of falls
 - Decreased ability to perform ADLs
- Reduced activity, confidence, independence and quality of life
- Increased isolation, depression, anxiety
- Development of frailty
- Increased risk of death

Sarcopaenia, Depression and Anxiety Relationship

- Low levels of muscle mass/sarcopenia is associated with poor mental health outcomes, such as an increased risk of developing symptoms of depression and anxiety.
- People with mental health issues often have issues with poor nutrition, hydration, have metabolic syndromes, diabetes, poor levels of physical activity and fall at a earlier age.
- low muscle mass is associated with low levels of a key brain derived neurotrophins, which are important for mood enhancement and feelings of wellbeing

Sarcopenia and the Common Mental Disorders: A Potential Regulatory Role of Skeletal Muscle on Brain Function? Pasco et al. Current Osteoporosis Reports 2015 Oct;13(5):351-7.

Treatment of sarcopaenia

- Resistance or strength training & post exercise protein
- Appropriate nutrition (HP/HE)





Progressive Resistance Training

- To effect change the training stimulus must slowly and progressively increase to provide an ongoing stimulus to challenge the bones and muscles
- This principle of progressive overload with weights is necessary (heavy weights rather than repetitions will increase muscle mass)
- The beneficial effects on the skeletal system will last only as long as the exercise continues

Post exercise

- Exercise without protein food results in negative protein balance
- Resistance exercise combined with amino acid ingestion gives the greatest anabolic response when protein is ingested following exercise.

Malnutrition causes

Inadequate intake

- Lack of appetite
- Depression, anxiety
- Eating alone, social isolation
- Chronic medical problems
- Medications
- Hospitalisation
- Altered consistency diets e.g. puree

Increased requirements

- May need 50% extra after catabolic (wasting) processes e.g. infection, fractures, pressure injuries, Parkinson's, dementia, etc.

SIMPLIFIED NUTRITIONAL APPETITE QUESTIONNAIRE (SNAQ)[®]

The SNAQ[®] requires no measuring of weight or height and is quick to complete. It can assist to identify if you may lose weight in the future.

You must be able to answer the 4 questions.

Name

Screening date Age

ADMINISTRATION INSTRUCTIONS
Answer the following questions and then tally the results.
The sum of the scores for the individual items constitutes the SNAQ score.

A. My appetite is

- Very poor = 1
- Poor = 2
- Average = 3
- Good = 4
- Very good = 5

B. When I eat, I

- Feel full after eating only a few mouthfuls = 1
- Feel full after eating about a third of a meal = 2
- Feel full after eating over half a meal = 3
- Feel full after eating most of the meal = 4
- Hardly ever feel full = 5

C. Food tastes

- Very bad = 1
- Bad = 2
- Average = 3
- Good = 4
- Very good = 5

D. Normally I will eat

- Less than one meal a day = 1
- One meal a day = 2
- Two meals a day = 3
- Three meals a day = 4
- More than three meals a day = 5

SNAQ score of 14 or less predicts significant risk of at least 5% weight loss within six months. Refer to dietitian for nutrition management plan.

**PAL 1.2 = Bed rest,
 PAL <1.4 not moving around freely
 PAL = (Physical Activity Level)**

	Metric	Imperial	PAL 1.2	PAL 1.4
Females				
Weight	56.3 kg	8st 12lb	1400 cal	1650 cal
Height	1.6 m	5ft 3"		
Weight	63.6kg	10 st	1480 cal	1720 cal
Height	1.7m	5ft 7"		
Weight	71.3 kg	11st 3lb	1580 cal	1840 cal
Height	1.8m	5ft 11"		PAL 1.8= 2350 cal

Source; Nutrient Reference Values for Australia and New Zealand > 70 years

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Height	1.7m	5ft 7"		
Weight	71.3 kg	11st 3lb	1700 cal	2000 cal
Height	1.8m	5ft 11"		PAL 1.8= 2600 cal

Source; Nutrient Reference Values for Australia and New Zealand > 70 years

Sample 1400 Calorie menu (Not using high calorie foods)

Daily Allowance	450ml Milk 15g Polyunsaturated margarine
Breakfast	1 serving Fruit 2 Weetbix with milk from allowance 1 slice toast with margarine/butter from allowance Tea/Coffee
Main meal	100g, lean meat, poultry or fish 0.5 cup mashed potato Vegetables 0.5 cup fruit salad Tea/Coffee
Evening meal	50g, lean meat, poultry or fish 2 slices bread with margarine/butter from allowance Tea/Coffee
Morning tea Afternoon tea Supper	Tea/Coffee

Need to increase the calories without the bulk i.e. fortify the food

Remember

- Fat/oil per gram: 9 Calories . (37 kilojoules)
 - Protein per gram : 4 Calories . (17 kilojoules)
 - Carbohydrate per gram : 4 Calories . (16 kilojoules)
- therefore clients need fat to keep up calories

What to do

- Know what the client likes to eat and fortify this
- Know which meal time the client eats best at e.g. Hot breakfast, smaller evening meal
- Keep warm food warm and reheat if slow eaters
- Meals and snack times shouldn't be too close together
- Small regular meals. Graze, make snacks count
- High calorie snack with every cup of tea or coffee
- Presentation, bright and colourful foods are more appealing
- Encourage eating with family and friends



What to do continued

- Utilise convenience foods e.g. custard, grated cheese
- Two desserts if desired
- Finger foods to promote independence
- Melt margarine over cooked vegetables
- Stir fresh cream through cream soups and sauces
- Fry meat, chicken, fish in oil
- Add mayonnaise to, sandwiches and fried fish
- Coat vegetables in oil and bake or fry
- Spread margarine thickly on toast, sandwiches, crackers, scones
- Serve cream with fresh or tinned fruit
- Add sugar to drinks and breakfast cereals
- Spread jam, honey generously on pikelets, scones, toast
- High protein high energy drinks, Proform, Sustagen, 2 Cal
- Avoid low calorie foods



Rolled Oats vs. ROLLED OATS

	Weight (g)	Protein (g)	Kilojoules Calories
Rolled Oats with Milk and sugar	322	6	1035 250
Rolled Oats with HP Milk and Cream and sugar	344	16	2653 630

Protein

- How much protein should older people have?
 - 81g protein men over 71 (64g in 19-70yo)
 - 57g protein Women over 71 (46g in 19-70yo)
 - 2-2½ serves of protein for 70+
 - RDI: 1-1.5g protein/kg ideal body weight/day
- What are the best protein foods to eat?
 - High Biological value

When is the best time to have protein?

- Every meal and after exercise

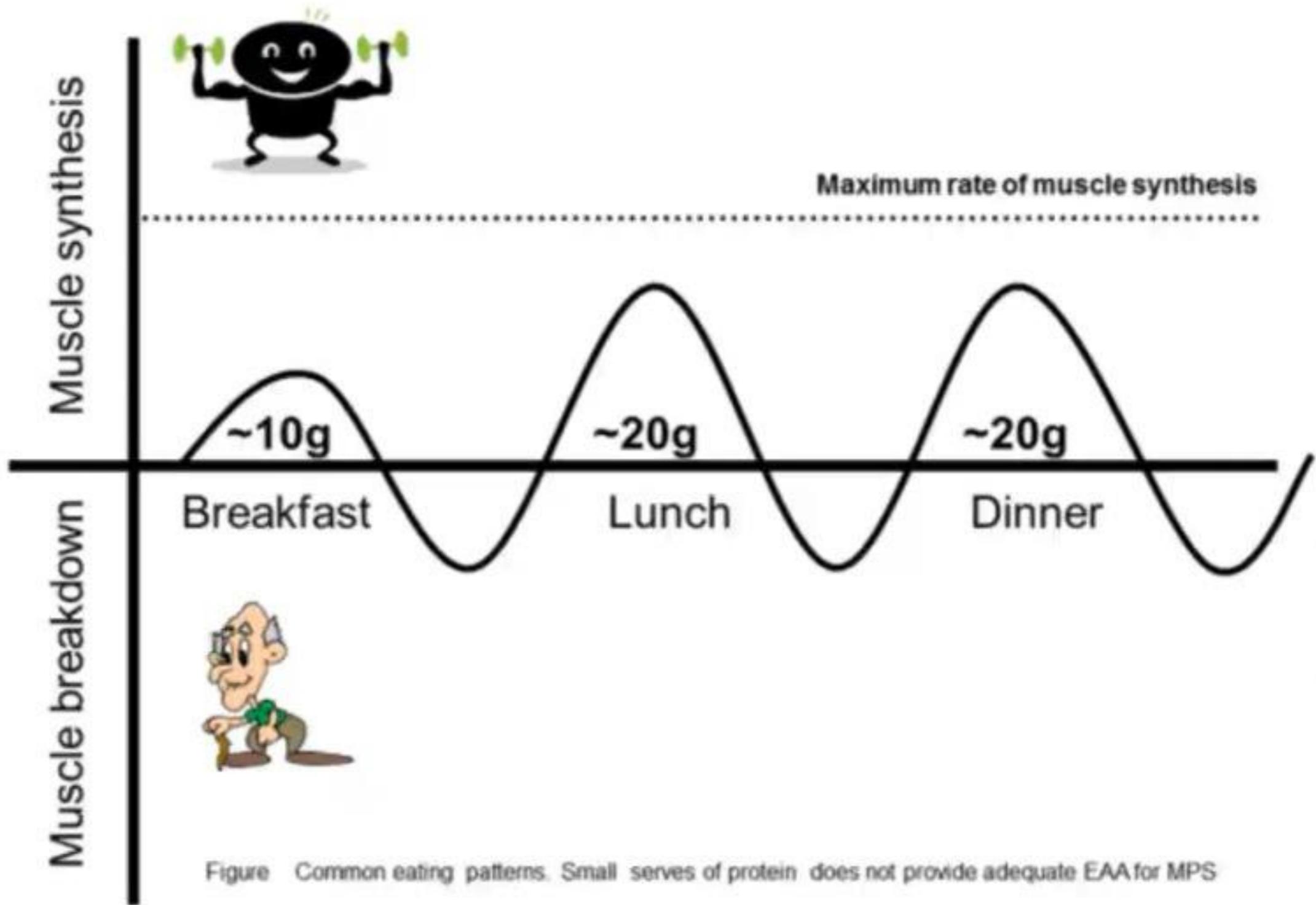


Figure Common eating patterns. Small serves of protein does not provide adequate EAA for MPS

Ideal Protein Distribution

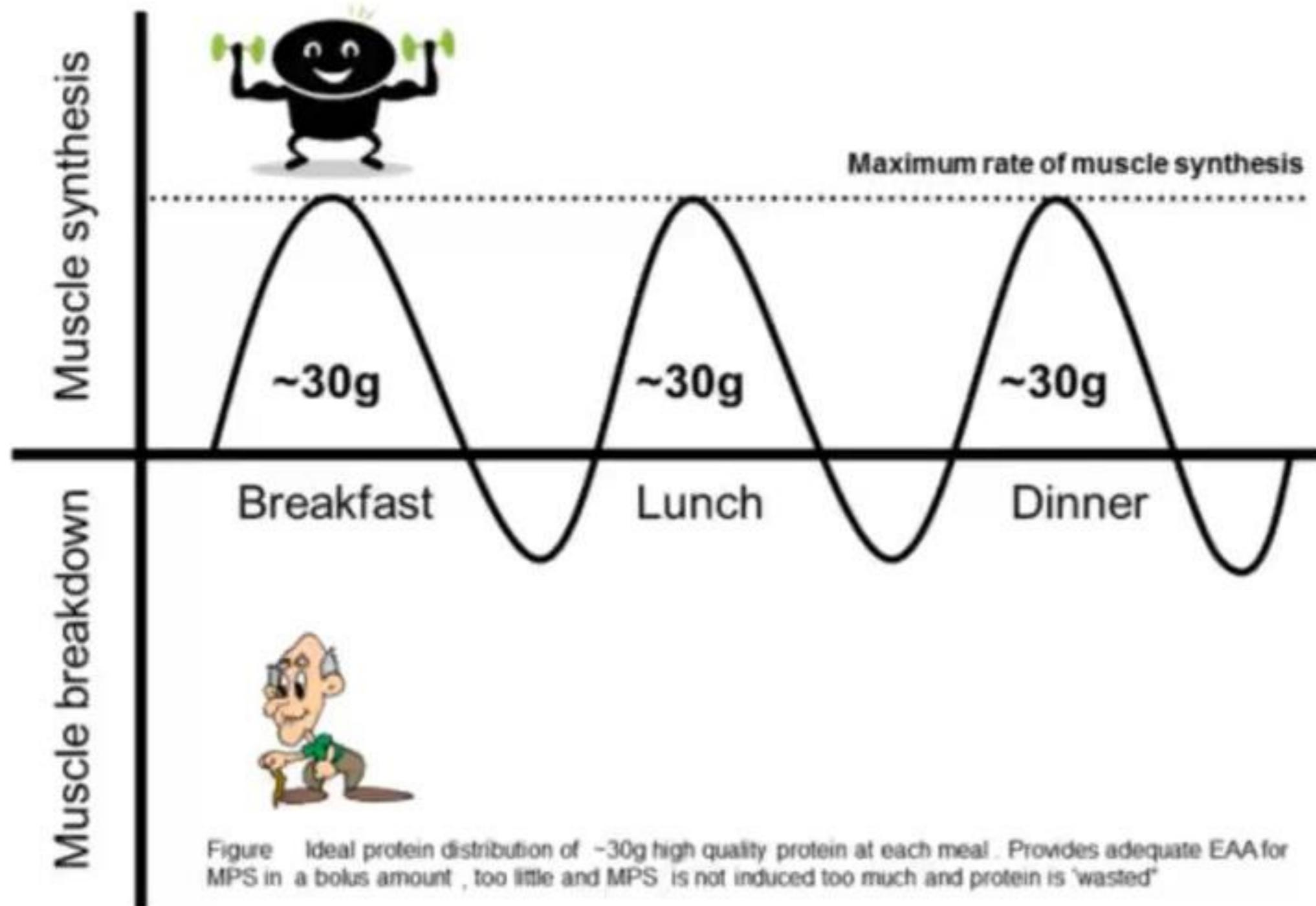


Figure Ideal protein distribution of ~30g high quality protein at each meal. Provides adequate EAA for MPS in a bolus amount, too little and MPS is not induced too much and protein is 'wasted'

High Protein Breakfast Ideas

- Kippers/smoked cod/tuna/sardines on toast
- Smoked salmon & eggs
- Eggs x 2 + bacon
- 2 x egg omelette with cheese and ham
- Scrambled egg x 2 with cheese
- Baked beans with slice grilled cheese/toast
- Sausages/mixed grill
- Milk smoothies - fortified with yoghurt/skim milk powder
- French toast with bacon

More High Protein Breakfast Ideas

- Bircher muesli with high protein yoghurt nuts and seeds
- Quiche
- Frittata/Zucchini Slice
- Breakfast muffins (egg/bacon/cheese)
- Prosciutto with cheese/grilled haloumi
- Sliced deli meats
- Breakfast burrito (egg and bacon)
- Cooked breakfasts - add milk powder to porridge, omelettes, use eggs mix
- Leftovers from main meal e.g. mince on toast

Should older people who are overweight or obese be encouraged to lose weight?

- Overweight and obesity are frequent problems among older people
- Evidence to support that being overweight is not necessarily associated with higher mortality in people over 65 years of age.
- In adults over 65, a BMI of less than 22 is associated with a significant increase in mortality in this older age group.
- A BMI of 27 is associated with the lowest mortality for this age group
- This means the healthy weight range for older people is more appropriately a BMI of 23 -30 rather than 20-25 recommended for younger adults.

- Health benefits of active weight loss in older people, particularly by calorie restriction are uncertain
- Deliberate weight loss in older people also can lead to muscle (protein) loss, functional decline and loss of independence.
- In some cases deliberate weight loss may be necessary to ease arthritis, etc. However a strategy to prevent loss of muscle mass is required. Exercise is a better option for weight loss
- Even if BMI is over 30 weight loss is fraught with problems. Diet alone will result in the loss of muscle mass.
- Any diet program will need to be coupled with exercise and sufficient protein and micronutrients to help preserve muscle mass.

Resources

Eating Well

A Nutrition Resource
for Older People and their Carers

- 'Eating Well' A Nutrition resource for Older People, their support workers and carers- Carolyn Bunney and Rudi Bartl, Central Coast Local Health District

<http://www.cclhd.health.nsw.gov.au/ourservices/nutrition/Documents/EatingWellResource.pdf>



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