Helping older people achieve & maintain a healthy diet for a long & active life

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Objectives

• To provide an overview of some of the nutrition related issues in older adults

• To consider some the factors that influence the nutritional status of older adults

• To consider how people can achieve a long & active life
Surviving to age 100*

CHANCES OF SURVIVING TO AGE 100 IN 2013

1 in 3 babies born in the UK today are expected to celebrate their 100th birthday

COHORT LIFE EXPECTANCY FOR THOSE BORN IN 2013

Office of National Statistics 2013
What are your chances of living to 100?

https://visual.ons.gov.uk/what-are-your-chances-of-living-to-100/
Nutrition-related concerns for the older adult

- Change in body composition
- Decreased energy requirements
- Sarcopenia/obesity
- Bone loss
- Chronic disease
- Monotonous diet

- Protein
- Vitamins B₁₂, B₆, folic acid
- Vitamin D
- Calcium
What is malnutrition?

• a state of nutrition in which deficiency or excess of energy, protein and other nutrients causes measurable adverse effects on tissue/body function and clinical outcome.

• NICE definition of malnutrition:
  – body mass index (BMI) of less than 18.5 kg/m$^2$
  – unintentional weight loss >10% in past 3–6 months
  – BMI <20 kg/m$^2$ & unintentional weight loss > 5% in past 3–6 months
Consequences of malnutrition

- Loss of muscle tissue & strength
  - respiratory muscles (chest infection)
  - cardiac function (heart failure)
  - mobility
- Reduced immune response/increased infections
- Poor wound healing
- Loss of mucosal integrity (malabsorption/bacterial translocation)
- Psychological decline—depression, apathy
- Poor prognosis & increased mortality & morbidity
Malnutrition in the UK

- 3 million people in the UK
- Risk of malnutrition increases with age
- 93% of those at risk live in the community
- 1 in 3 are at risk of malnutrition on admission to hospital
- Twice the number of GP visits
- 3 X the number of hospital admissions
- Estimates cost to the NHS >19 billion pounds/annum
Factors affecting nutritional intake & absorption in older adults

Social/psychological

• Isolation
• Neglect
• Psychological
  – bereavement
  – depression
  – dementia
• Economic
  – cost
  – access
• Social support
  – Meals on wheels
  – Lunch clubs
  – home delivery services

Image: 'Loneliness'
http://www.flickr.com/photos/78019868@N05/7465687106
Factors affecting nutritional intake & absorption in older adults

Physiological

- Visual impairment
- Mobility
- Dexterity
- Dental health
- Illness/medications
- Gastrointestinal changes
  - Taste
  - Hormonal
  - Atrophic gastritis
Lyn’s story – Malnutrition Task Force Case Study

https://www.youtube.com/watch?v=f1ERiWm5aBA&feature=youtu.be
Malnutrition Prevention Programme

http://www.malnutritiontaskforce.org.uk/

• DoH funded
• Whole community approach
• 5 pilot areas
• 5 key principles:
  – Raise awareness of malnutrition
  – Work together
  – Identify older people who are malnourished or at risk
  – Provide support, care and treatment and monitor progress;
  – Monitor and evaluate your activities
Small appetite campaign
http://www.malnutritiontaskforce.org.uk/

• Weight loss is not a normal part of ageing
• Importance of maintaining a healthy, stable weight
• Challenges misconceptions
Effect of a dietary intervention on immune status in older adults (FIT study)

Randomisation to food or micronutrient had a significant clinical impact

Forster et al. 2012 JAGS;60(9):1645-54
"... maintaining the health and functional capacity of the increasing elderly population will be a crucial factor in reducing the demand for, and cost of, health services."

"A life-course perspective is essential for the prevention and control of noncommunicable diseases. This approach ... encourages a healthy diet and regular physical activity from youth into old age."

Physical activity & interventions to increase fruit and vegetable consumption are ‘moderately effective’. Need to reduce barriers.
Risk factors for dementia

- Age
- Head injury
- Genetics
- High blood pressure
- Cholesterol
- Diabetes
- Obesity
- Oxidative stress
- Homocysteine
- Atherosclerosis
- Low physical activity
- Smoking
- Poor diet
- Low omega 3
Risk factors for cardiovascular disease

- High blood pressure
- Cholesterol
- Diabetes
- Obesity
- Oxidative stress
- Atherosclerosis
- Homocysteine
- Low omega 3
- Low physical activity
- Smoking
- Poor diet
- Age
- Genetics
A Mediterranean diet

Mediterranean diet and multiple health outcomes: an umbrella review of meta-analyses of observational studies and randomised trials

M Dinu1, G Paglia1, A Casini1,2 and F Sori1,2,3

A Higher Adherence to a Mediterranean-Styl Diet Is Inversely Associated with the Development of Frailty in Community-Dwelling Elderly Men and Women1,2

Sameera A. Talegawkar,3,4 Stefania Bandinelli,5 Karen Bandeen-Roche,4 Ping Chen,3 Yuri Milanese, Toshiko Tanaka,6 Richard D. Semba,7 Jack M. Guralnik,9 and Luigi Ferrucci6

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Mediterranean Diet and Risk for Alzheimer’s Disease

Nikolaos Scarmeas, MD1,2,3, Yaakov Stern, PhD1,2,3, Ming-Xin Tang, PhD1,4, Richard Mayeux, MD1,2,3, and Jose A. Luchsinger, MD1,5

1 Taub Institute for Research in Alzheimer’s Disease and the Aging Brain, Columbia University, New York, NY
Dementia can be prevented: statement supported by international experts

“Public health policies should encourage middle aged people to:

- Stop smoking
- Exercise
- Eat diets rich in fruits, vegetables, fish (Mediterranean)
- Avoid becoming obese and diabetic
- Avoid excessive alcohol
- Treat high blood pressure...in other words –

tell people that adopting a healthy lifestyle may help ward off dementia as it does for other diseases.”

Key messages

• Older people require a more nutrient dense diet
• Multiple barriers to achieving adequate dietary intakes in older people
• Misconceptions about diet need challenging
• Awareness, education, screening, act, monitor
• Successful ageing starts early – exercise & health diet are key.
“Old age is like everything else. To make a success of it, you've got to start young”.

Theodore Roosevelt
Further information

- http://www.malnutritiontaskforce.org.uk/
- http://www.bapen.org.uk/
- www.nutrition.org.uk
- https://www.alzheimers.org.uk/