

# Dietary Reference Values

DRV

# Why DRV's?

- No two individuals are the same
- Their aim is that everyone in the country gets enough of every nutrient, even if they need an unusually high amount.
- Energy intake must be treated differently due to the possibility of obesity.

# Definitions

- EAR: Estimated average requirement
- RNI: Reference nutrient intake: the amount of a nutrient that is enough for every individual including those with high needs for a nutrient.
- LRNI: Lower Reference Nutrient Intake: The amount of a nutrient needed for people with low needs. Most people will need more.

- **Safe Intake:** A safe intake is one which is judged to be adequate for almost everyone's needs but not so large as to cause undesirable effect.

# How do they relate?

- The LRNI is sufficient for only a small number of people ( about 3% of the population who have low needs)
- The EAR for energy or a nutrient is the amount which any stated group of people will on average need.
- The RNI is the amount of a nutrient which is sufficient for at least 97% of the population.

# Using Dietary Reference Values

- To assess diets of groups of people: To insure all individuals in group are eating sufficient nutrients. To make sure the risk of deficiency is small, the average group intake should be at the level of RNI.
- To assess an individuals diet: This may show how adequate a persons diet is but great care needs to be taken when using figures for this purpose.

# Using DRV's

- Planning food supplies for large groups: To make sure that everybody gets adequate nutrients for their needs. This must include those with a high nutrient requirement so it is wise to use RNI figures.
- Nutrition Labelling: What is appropriate for groups may not be appropriate for individuals.

# Protein

- If dietary energy is not met, dietary protein is used as a source of energy rather than growth and repair.
- Figures for pregnant women and children allow for child growth, growth of foetus and breast milk production

- Protein DRV's take account of male and female body size including children's sizes.
- Age and growth effect protein requirement.
- Adequate protein in the elderly important because body tissues wear out in older age groups.
- Vegans and vegetarians may need to source their protein from foods which are suitable.

# Energy and DRV's

- Basically the larger the body size the more energy's required. Males normally have a bigger body size than females.
- Everyone needs energy but as we get older we become less active thus requiring less energy.

- The amount of energy needed by adults depends on their occupation and use of leisure time.
- EAR's for energy take account of this fact and are no longer based on type of job.
- Be careful in pregnancy because physical activity is less.

- Breast feeding demands that there must be enough energy for the mother and her growing baby.
- Invalids must cut down on starchy and sugary foods to avoid becoming obese.
- Sensible slimmers will have a diet that cuts down the EAR of energy.

- Anorexics or underweight people should be following diets that include more energy than the EAR for normal individuals.

# Fats

- It is recommended that :
- 10% of total dietary energy should be saturated fats
- 18% of total energy should be from unsaturated fats
- Total fat intake should average 33% of total dietary energy for the population

# Carbohydrates

- It is recommended that:
- 10% of carbohydrates are in the form of sugar.
- 37% of carbohydrates are in the form of starches
- Total carbohydrate intake should average 47% of total dietary energy for the population

# Non Starch Polysaccharide

- A DRV for NSP is recommended to be 18g per day.
- Because of body weight children should eat less.

# Vitamins/minerals

- For most a figure between EAR and RNI would be sufficient for normal needs for most vitamins.
- B group vitamins are usually higher because of their role in the release of energy from carbohydrate.