Healthy eating

Level 2 Lifestyle and health awareness management

Learning outcomes

By the end of this session you will be able to:

- Describe the national food model/guide
- Describe key healthy eating advice that underpins a healthy diet
- Explain the importance of adequate hydration
- Explain professional role boundaries in relation to offering nutritional advice
- Describe the energy balance equation
- Explain the health risks of poor nutrition

Professional role boundaries

It is important to be aware of your limitations when giving nutritional advice to clients

The information passed on must be advice on healthy eating habits only and based on the current national healthy eating guidelines - 'Eatwell guide'

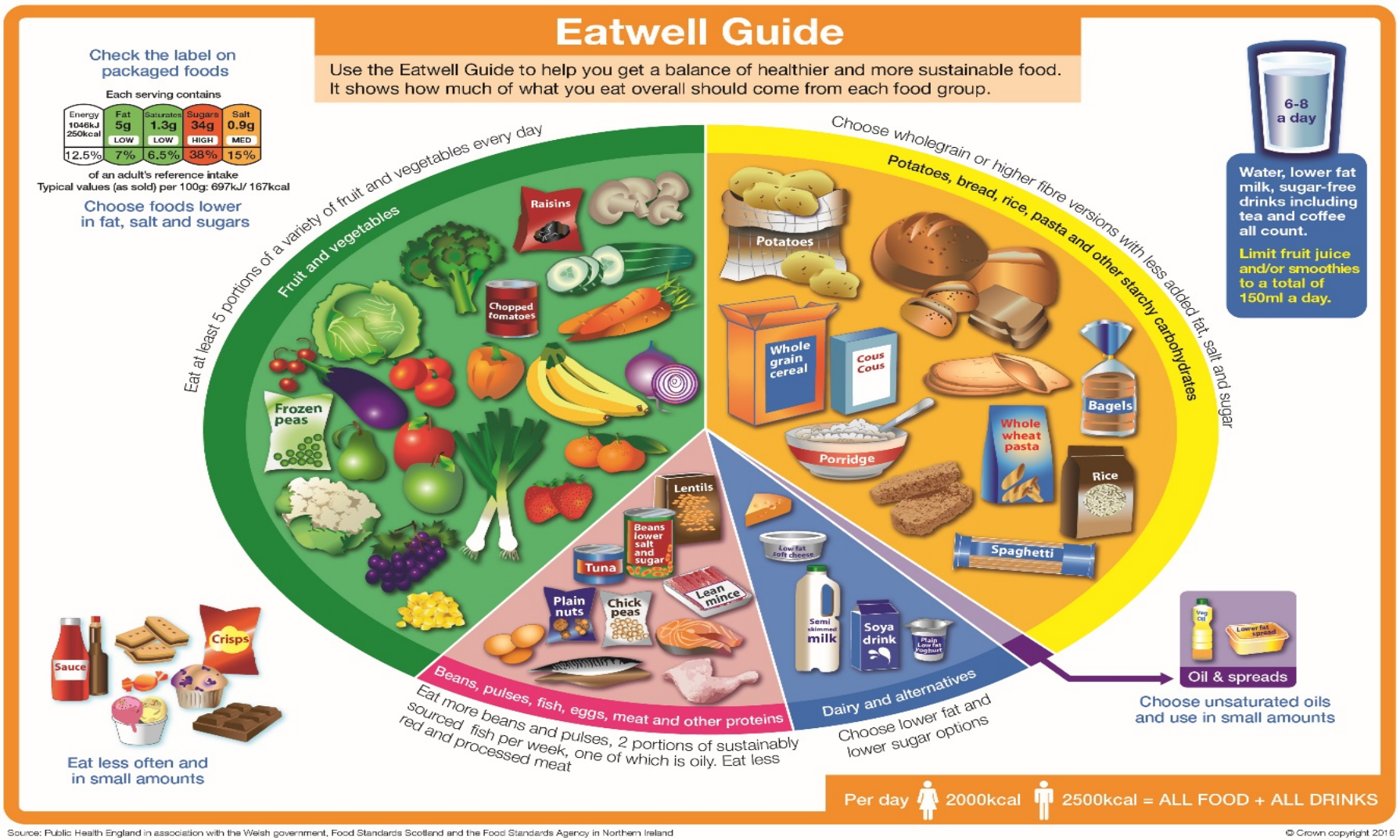
Any advice based on these guidelines should only be given to healthy individuals

It not the role of an instructor to recommend specific diets, supplements or eating plans or advise on eating for ill health

In doing so, the instructor will be contravening codes of ethical conduct and may not be covered by insurance

Eatwell guide

Public Health England (PHE) keeps dietary recommendations under review as part of its role for public health. In 2014 the Eatwell Plate was replaced by the Eatwell Guide which is the current guide used for healthy eating advice (2018)



Source: Public Health England in association with the Welsh government, Food Standards Scotland and the Food Standards Agency in Northern Ireland

Eatwell guidance

- Eat at least 5 portions fruit and vegetables every day
- Meals should be based around potatoes, bread, rice, pasta and other starchy carbohydrates, choosing wholegrain versions where possible
- Eat some dairy or dairy alternatives; choosing lower fat and lower sugar options where possible
- Eat some beans, pulses, fish, eggs, meat and other proteins (include 2 portions of fish every week, 1 should be oily).
- Choose unsaturated oils and spreads and eat in small amounts
- Drink 6 to 8 cups/glasses of fluid a day
- If consuming foods and drinks high in fat, salt or sugar have these less often and in small amounts

Eatwell guidance

- Foods and drink are divided into five main groups
- Choosing a variety of different foods from each group ensures a wide range of nutrients are consumed which will keep the body healthy
- It is important to eat some fat
- Foods high in fat, salt and sugar are placed outside of the main image as these foods are not essential in the diet and most individuals need to cut down on these
- Unsaturated fats from plant sources, for example vegetable oil or olive oil, are healthier types of fat
- At least five portions of varied fruit and veg should be eaten every day. This can be fresh, frozen, canned, dried or juiced

Eatwell guidance

Many foods, such as pizzas, casseroles, pasta dishes and sandwiches, are a combination of the food groups

For example, a cottage pie

- The potato is from the yellow segment
- The milk in the mashed potato is from the blue segment
- The spread in the mashed potato is from the purple segment
- The meat or meat substitute would be from the pink segment
- The onion, carrots and peas would fit into the green segment

Eatwell guidance

Examples of fruit and vegetables portions 80g or any of these		
An apple	A pear	An orange
3 heaped spoons of vegetables	A desert bowl of salad	30g dried fruit*
150ml fruit juice*	150ml smoothie*	*Only counts as 1 portion even if more are eaten

Eatwell guidance

Potatoes, bread, rice, pasta and other starchy carbohydrates should make up just over a third of food eaten and meals should be based around them

Higher-fibre, wholegrain varieties (whole-wheat pasta, brown rice, or simply leaving the skins on potatoes) are the best choices

Eatwell guidance

Beans, pulses, fish, eggs and meat are sources of protein, vitamins and minerals, so it is important to eat some foods from this group

At least two portions of fish should be eaten each week and one of these should be a portion of oily fish

Lean cuts of meat should be chosen and the fat and skin should be removed

The upper limit of red or processed meat each day is 70g
Processed meat should be avoided, e.g. sausages, bacon, cured and reformed meat products

Eatwell guidance

Foods high in fat and sugars such as chocolate, cakes, biscuits, full-sugar soft drinks, butter and ice-cream are not needed in the diet and should only be consumed in small amounts

Cutting down on saturated fat can lower blood cholesterol and reduce the risk of cardiovascular disease

Most individuals in the UK eat too much saturated fat
A man should have no more than 30g saturated fat a day and a woman no more than 20g

Fatty cuts of meat, sausages, butter, cream, cheese, chocolate, pastries, cakes and biscuits should only be included in a healthy diet occasionally

Eatwell guidance

Consuming foods/drinks high in sugar increases risk of obesity and tooth decay

No more than 5% of energy consumed should come from added sugars

Currently, UK adults are consuming 2-3 times that amount

The amount of added sugar per day should be no more than 30g (7 sugar cubes)

Many packaged foods and drinks contain high amounts of sugars including some breakfast cereals, yoghurts and fruit juice drinks

Eatwell guidance

Eating too much salt can raise blood pressure, which increases the risk of developing heart disease or stroke

Adults should eat no more than 6g of salt (teaspoon) a day

Most salt eaten is already in foods such as bread, breakfast cereal, pasta sauce and soup rather than the salt we add to foods

Eatwell guidance - hydration

- Drink 6-8 glasses of fluid every day
- Water, lower fat milk and sugar-free drinks including tea and coffee all count
- Fruit juice and smoothies count but they are a source of sugar
- Sugary drinks are one of the main contributors to excess sugar consumption amongst children and adults in the UK
- Alcohol also contains lots of calories and should be limited

Key nutrients

- The body needs fuel to provide energy for all organs and cells to be able to do their job
- These fuels are provided in the form of the following macronutrients

Macronutrient	Example foods	Necessary for
Carbohydrates	Rice, pasta, potatoes, bread, cereals and grains	Energy production
Fats	Dairy, oils, nuts, seeds and fish production	Insulation and energy
Proteins	Meat, dairy, nuts, pulses and fish	Repair and growth of body tissues

Carbohydrates

Carbohydrates in the food we eat come in two forms

- **Simple carbohydrates**
  - naturally occurring sugars found in fruits and milk
- **Complex carbohydrates**
  - starches found in plants, particularly grains, seeds and root vegetables like potatoes

Fats

Dietary fats are complex organic substances that are not soluble in water

There are two basic types; saturated and unsaturated

Type of Fat	Example
Saturated fats (solid at room temperature)	Butter, suet and lard. Meat, meat products, cheese and cream also contain a high percentage of saturated fats
Unsaturated fats Poly unsaturated, Mono unsaturated (very soft or liquid at room temperature)	Nuts, fish and many types of seeds and plant products.

Micronutrients – vitamins and minerals

In addition to the macronutrients, individuals need micronutrients :

- Vitamins – to enable us to effectively use the energy from the macronutrients.

- Minerals – these are necessary for a range of very specific tasks.

Micronutrients – vitamins

Fat soluble vitamins - A, D, E, K

These need the presence of fat to be absorbed, transported and utilise in the body

Water soluble vitamins – B and C

These need the presence of water to be absorbed, transported and utilised in the body

Mineral	Food source
Calcium • Balances acid and alkali • Bone growth • Muscle contraction	• Dairy products • Green leafy vegetables • Fish with soft bones
Chloride • Assists protein and carbohydrate digestion • Balances acid and alkali • Regulates fluid balance	• Coconut flesh • Natural unprocessed sea salt
Magnesium • Bone formation • Carbohydrate metabolism • Tooth enamel • Nerve transmission	• Dairy • Fish • Nuts • Natural unprocessed sea salt

Phosphorus • Bone growth • Cell growth • Kidney function	• Animal produce • Nuts • Pulses • Whole grains
Potassium • Cell chemistry • Fluid balance	• Natural unprocessed salt • Nuts • Vegetables
Sodium • Distribution of cell fluid • Nerve transmission	• Natural unprocessed salt • Meat/bone broths • Courgettes/marrow
Sulphur • Muscle cell structure • Protects from infection • Cartilage and skin formation • Protects against pollution	• Eggs • Dairy • Cruciferous vegetables (broccoli, cauliflower)

Fibre

- The body also needs fibre, which is a form of carbohydrate that is found in plant cell walls.
- Fibre is essential for optimum function of the digestive system

Hydration

Water:

- Accounts for approximately two-thirds of an adult's bodyweight
- Main component of cells and blood
- The body needs a constant amount of it

Essential for:

- Transport of nutrients
- Transit of waste
- Brain and body functioning
- Joint lubrication
- Body temperature regulation

Hydration

Lost water must be replaced

Water is lost in a number of ways:

- Through urine and faeces
- Evaporation from the skin as sweat
- Expired breath

Even without moving around, an individual can lose 2–2.5 litres of water per day

Approximately 50% of this can be replaced from food, but it is still necessary to drink plenty of fluids

Hydration

- A sportsperson in training would need to drink much more than the recommended amounts
- Up to 4-5 litres of water can be lost in sweat in a day, and even more in hot environments
- If too much water is lost from the body without it being replaced, the building of body tissues, temperature regulation and metabolic rate are all affected
- The resulting dehydration can lead to fatigue, headaches, lack of concentration and constipation
- A loss of only 10% of normal bodily requirements can result in severe dehydration that may be fatal

How much food do we need to eat?

Everyone needs different amounts of energy (or calories) to be a healthy weight

How much each individual will need depends on a variety of aspects such as, how active they are

If more food is consumed than their body needs, they will put on weight

The UK government recommends that adults (and children and young people over 11 years) eat no more than 2500 calories per day (males) and 2000 per day (females)

Energy balance

- Calories (energy) taken in versus calories burned as energy (out)
- Neutral energy balance - calories taken in are equal to the calories expended
- Positive energy balance - more calories are taken in than expended and therefore weight is gained
- Negative energy balance (energy deficit) – consuming fewer calories than the number of calories expended

Energy balance

- The body will remain the same weight when calorific intake equals calorific expenditure
- If intake exceeds output, the excess is stored as fat weight
- If output exceeds input the result is weight loss

Energy in > energy out = **weight gain**

Energy in < energy out = **weight loss**

Energy in = energy out = **weight maintenance**

Energy balance

To lose fat weight, a deficit must be achieved

The recommended strategy is to create a deficit of 3,500 kcals to lose 1 lb of stored fat

It is essential to remember every individual trying to lose fat weight will do so at different rates and under differing conditions

Generally best achieved through increased physical activity and a reduction in daily consumption of calories

Health risks of poor nutrition

- Obesity
- Diabetes
- Coronary heart disease
- Other lifestyle-related illness and disease
- General effects on physiological and psychological functions
- Effects on mental health and wellbeing
- Effects on daily life such as low mood, lack of energy, effects on sleep

Detrimental effects of a poor diet	
Physiological effects	**Psychological effects**
Lack of energy, fatigue	Increased stress levels
Poor sleeping patterns	Tired all of the time
Headaches	Inability to concentrate
Aches and pains	Low mood
Erratic blood sugar levels	Depression
Bad breath	Nervousness, jittery
Nausea	Lack of vibrancy and zest for life
Constipation or diarrhoea	High anxiety levels
Feeling ill all of the time	Feelings of anger
Bad skin	Lack of motivation

Type of diet	Health risks
Very low calorie	Low energy, fatigue Nausea, constipation or diarrhoea Headaches Lack of essential nutrients Negative effects on mental health (low mood) Hungry all of the time
Meal replacement	Boredom and lack of variety of foods Low energy, fatigue Lack of essential nutrients
Fasting	Risk of dehydration Lack of essential nutrients Low energy, fatigue Increased headaches, aches, pains, allergies, bad breath
Food combining	Erratic blood sugar levels Very restrictive meals. May lack essential nutrients

Risks of excess caffeine

Caffeine is mildly addictive making it one of the world's most widely used drugs

Caffeine is found in:

- Coffee
- Tea
- Cola-based drinks
- Energy drinks
- Chocolate
- Diet pills

Risks of excess caffeine

Caffeine can have a positive effect and has many benefits in the short-term

Caffeine makes you feel alert and boosts mood due to the effects on the brain.

Caffeine can also cause the following in the short-term:

- Dizziness and light-headedness
- Jitters and shakiness
- Nausea
- Rapid heart-beat

Risks of excess caffeine

Caffeine should be limited to no more than four caffeine drinks per day and avoided after 1pm

It takes about 10 hours for caffeine to leave the system so quality of sleep may be affected

Caffeine can also affect health in the following ways:

- Interferes with iron absorption (avoid at mealtimes for risk of iron deficiency)
- Stimulation of the central nervous system (increasing heart rate and blood pressure)
- Stomach irritation (causing headaches and insomnia)

Risks of excess alcohol

In 2016, Alcohol Concern's research found that more than 9 million people in England drink more than the recommended daily limits

Excess alcohol use causes 10% of the UK's disease and death, making alcohol one of the three biggest lifestyle risk factors for disease and death in the UK (after smoking and obesity)

An estimated 7.5 million people are unaware of the damage excess alcohol drinking could be causing

Risks of excess alcohol

Less than 14 units a week is considered low risk drinking

It is ‘low risk’ rather than ‘safe’ because there is no safe drinking level

Risks of excess alcohol

If an individual regularly drinks more than 14 units a week for 10-20 years, they are at risk of:

- Brain damage
- Cancers of the mouth, throat and breast
- Damage to the nervous system
- Heart disease
- Liver disease
- Stroke