



Diet and lifestyle adaptations for the management of Type 2 diabetes in Children and Young People

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Summary

- *Current guidelines available*
- *Dietary adaptations*
- *Activity*



What recommendations are available for Health Care Professionals to support children and young people with Type 2 Diabetes?

Diabetes (type 1 and type 2) in children and young people: diagnosis and management

NICE guideline

Published: 1 August 2015

www.nice.org.uk/guidance/ng18

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sociation of Children's Diabetes Clinicians



Clinical Guideline

A Practical Approach to Management of Type 2 diabetes in Children and Young People (CYP) under 18 years

- *1.3.15 At each contact with a child or young person with type 2 diabetes who is overweight or obese, advise them and their families or carers about the benefits of exercise and weight loss, and provide support towards achieving this.*
- *1.3.16 Offer children and young people with type 2 diabetes dietetic support to help optimise body weight and blood glucose levels. [2004, amended 2015]*
- *1.3.17 At each contact with a child or young person with type 2 diabetes, explain to them and their families or carers how healthy eating can help to:*
 - *reduce hyperglycaemia reduce cardiovascular risk*
 - *promote weight loss (see recommendation 1.3.15). [2015]*
- *1.3.20 Encourage children and young people with type 2 diabetes to eat at least 5 portions of fruit and vegetables each day. [2015]*

Recommendations

- There is currently insufficient evidence in CYP to recommend specific targets for weight loss to control or reverse T2DM.
- Targets for weight should be set to reduce weight by 5% in first 3 months in pre-pubertal and pubertal CYP. (Grade D)
- Post pubertal young people should be advised to aim for 5% weight loss in 3-6 months and 10% weight loss in the 1st year. (Grade D)
- In the longer term CYP should be encouraged to aim to reduce BMI to below 85th centile. Professionals need to be aware this may take several years especially in post pubertal young people (Grade D).

- *An individualised and family wide approach to dietary modification is essential.*
- *Regular follow up appointments with a specialised paediatric diabetes dietitian are essential to monitor progress and review goals.*
- *From the diagnosis of T2DM, families should be encouraged to follow a healthy balanced diet that is rich in wholegrains, vegetables, fruit, low fat dairy, nuts and seeds and limits fats, oils and sugary foods.*
- *If there has been no significant weight loss 6 months after diagnosis while aiming to implement a healthy balanced diet, then alternative approaches can be considered.*
 - *A healthy low fat diet*
 - *A lower carbohydrate diet*
 - *A low energy diet using either meal replacement products or a guided amount of calories*

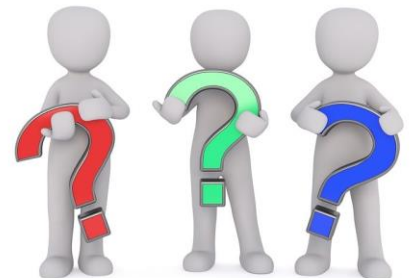


What structured education is available for children & young people?

- There is very little evidence related to what a structured education programme for paediatric T2DM should look like and its efficacy with no programme undergoing a randomised controlled trial (RCT).
- Two structured education programmes have been developed for CYP with T2DM, the TODAY Standard Diabetes Education (TSDÉ) and iCAN
- Recommendations
- Individualised Structured diabetes education should be provided to CYP with T2DM and their carers at the time of diagnosis, revised soon after diagnosis then annually or more frequently dependent on individual need. (Good Practice point)
- No single structured programme is recommended, with TSDÉ and iCAN being examples of existing programmes.

What do we do currently in paediatric dietetics?

- Typically manage the obesity and weight by focusing on healthy eating and energy restriction and physical activity based on obesity clinic/education models....
- Adult education focuses on diabetes with specific dietary goals
- Must include Carb awareness, Glycaemic index and Glycaemic load and effect on blood glucose level.



But first...

- Who feels confident about raising the issue of weight with children and young people?

POLL

A hand holding a blue marker is shown underlining the word 'POLL' in blue capital letters. The hand is positioned at the bottom right of the word, with the marker tip touching the underline.

Raising the issue



Public Health
England



NUFFIELD DEPARTMENT OF
PRIMARY CARE
HEALTH SCIENCES

Let's Talk About Weight:

A step-by-step guide to conversations about weight management with children and families for health and care professionals



Pediatric OBESITY

WORLD
OBESITY

EDITORIAL | [Free Access](#)

Championing the use of people-first language in childhood overweight and obesity to address weight bias and stigma: A joint statement from the European-Childhood-Obesity-Group (ECOG), the European-Coalition-for-People-Living-with-Obesity (ECPO), the International-Paediatric-Association (IPA), Obesity-Canada, the European-Association-for-the-Study-of-Obesity Childhood-Obesity-Task-Force (EASO-COTF), Obesity Action Coalition (OAC), The Obesity Society (TOS) and the World-Obesity-Federation (WOF)

D. Weghuber, N. Khandpur, E. Boyland, A. Mazur, M. L. Frelut, A. Forslund, E. Vlachopapadopoulou, É. Erhardt, A. Vania, D. Molnar, S. Ring-Dimitriou, M. Caroli, V. Mooney, M. Forhan ... [See all authors](#) ▾

First published: 01 April 2023 | <https://doi.org/10.1111/ijpo.13024>

D. Weghuber and N. Khandpur similar contribution as shared-first authors.

SECTIONS

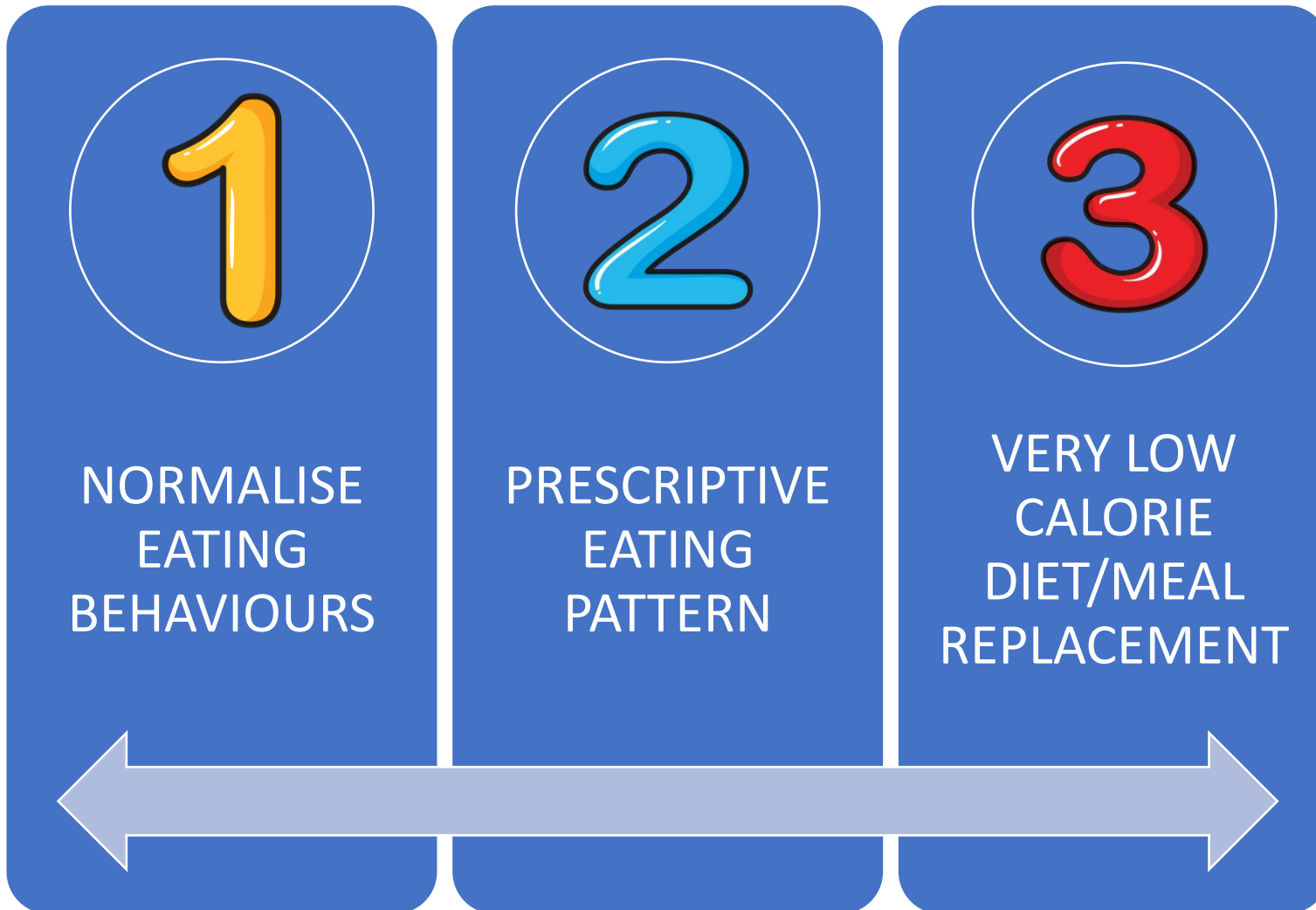
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Dietetic interventions

HEALTHY DIET



An example..East of England Network Type 2 working group...Dietitians Resource plan



Aim of the 3 stage plan

Young person & their family

- Structured plan to follow
- Resources to take home to support learning in clinic
- Tips & ideas of where to find further information
- Links to local amenities

Dietitian & MDT

- Structured framework to follow
- Resources to go through in clinic including games and activities to support interactive learning
- Guidance on how to achieve holistic diet & lifestyle assessment

Dietary support at diagnosis



AIM: ASSESS & NORMALISE EATING BEHAVIOURS

- Referral to Specialist Paediatric Diabetes Dietitian at diagnosis
- Height / Weight / BMI / Waist circumference
- Hollistic approach to understanding role of food in family
- Weight trends of family members
- History of weight in child (?yo yo dieting child or parent)
- Food eating habits
- ? Specific advice depending on blood results ie hyperlipidaemia

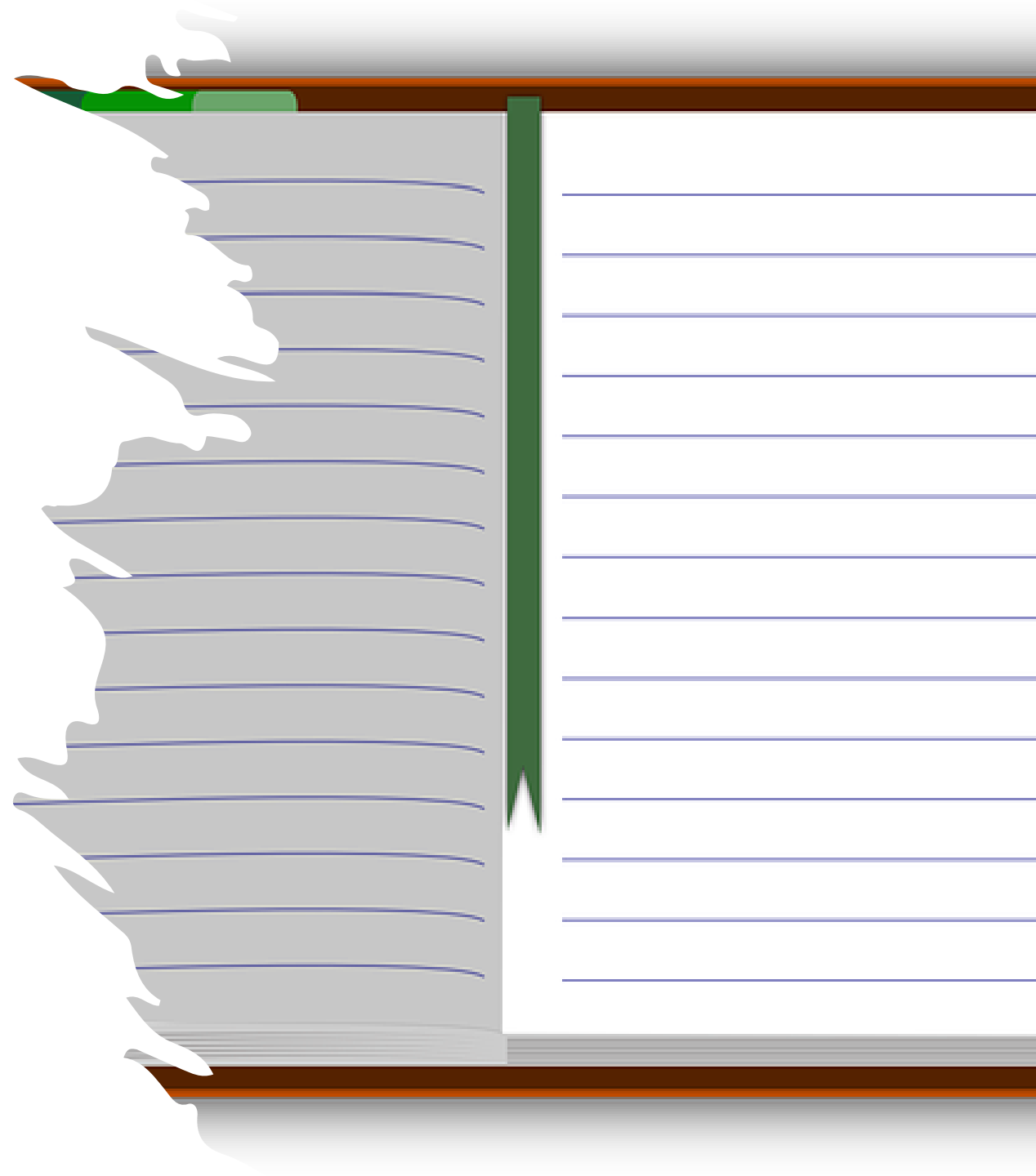
Open discussion with family regarding development of therapeutic goals in T2DM

- *Weight loss*
- *Increase in exercise capacity*
- *Normalization of glycaemia – using portion control, carbohydrate moderation, glycaemic index, calorie restriction*
- *Control of comorbidities including hypertension, dyslipidaemia, nephropathy and hepatic steatosis*



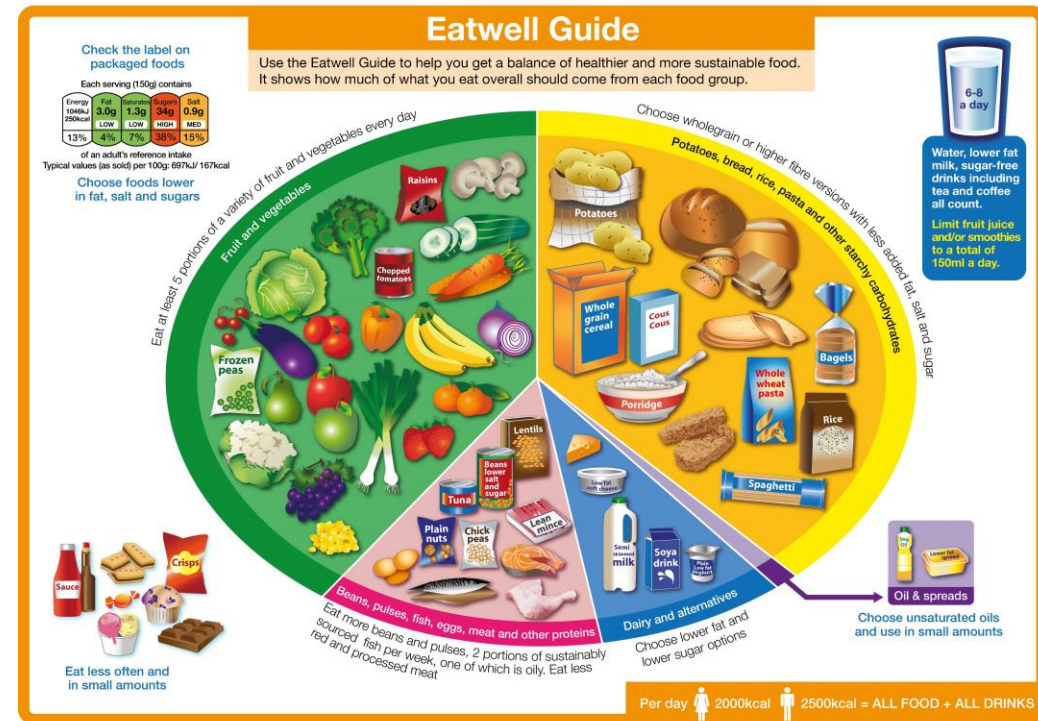
How do we assess dietary intake?

- 24hr recall
 - food diary
 - photo diary
 - food frequency questionnaire
- Changes in dietary habits?
- Environmental
- Knowledge of current healthy eating



Main flags to consider

- Meal structure
- Fruit and vegetable intake
- Refined sugar intake
- Fluid intake
- Snacking



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

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What should we advise?

- What is current breakfast / meal pattern?
- Change type of breakfast from high GI to low GI
- What is snacking pattern? ie miss bkft but eat high kcal snack mid am – better to introduce bkft?
- Individualised plan essential

Typical Portion Sizes for Toddlers

- **Bread-** 1 ½ small slices or 1 large slice (20-30g)
- **Potatoes-** 1 small baked or 1-2 boiled potatoes (80 -100g)
- **Pasta and noodles-** 3-4 tablespoons (80-100g)
- **Breakfast cereals-** 3-5 tablespoons (20-30g) or 1/3 -1/2 bowl of porridge made with milk (100-110g)
- **Rice (dried)-** 35-55g

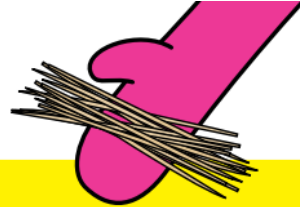
Typical Portion Sizes for Adults

- **Bread-** 1 medium slice of bread
- **Pasta and rice-** (boiled) 2-3 tablespoons
- **Potatoes-** 2 egg sized new potatoes (boiled) or 1 medium baked potato (with skin)*
- **Breakfast cereal-** (40g): 3 tablespoons
- **Porridge oats-** (40g): 3 tablespoons

*Initial advice regarding appropriate portions
Portion control carbohydrate*

Age appropriate portion size resources

portion sizes and food groups



Starchy foods

This includes all breads, potatoes, rice, couscous, bulgur wheat, semolina, tapioca, maize, cornmeal, noodles and pasta, oats, millet, barley, buckwheat, rye, spelt, plantain, yam, sweet potato, and cassava.

Typical portion sizes (grams/mls/household measures) raw and cooked food

Food		Primary 4-10 year olds	Secondary 11-18 year olds
Bread: includes white, wholemeal, granary, brown, wheatgerm, multigrain, potato bread, chapattis, plain baked naan, rotis, rolls, bagels, pitta, wraps.		(50-70g) 1-2 slices of medium bread 1 small roll 1 small or large bagel 1 small pitta 2 6" wraps 1 10" wrap	(80-100g) 2 thick slices of bread 1 large roll or sub roll 1 large bagel 1 large pitta 1 12" wrap
Potatoes or sweet potato: includes boiled mashed.	Raw	120-170g	200-250g
Jacket and baked potatoes.	Raw	200-280g	330-410g
Other starchy root vegetables: includes yam, plantain, cocoyam and cassava.	Raw	100-150g	150-200g
Pasta and noodles: includes white and wholemeal spaghetti, noodles and pasta shapes.	Dried ¹	45-65g	65-80g
Rice: includes white and brown rice.	Dried ¹	35-55g	55-65g
Other grains: includes couscous, bulgur wheat, maize (polenta) and cornmeal.	Dried ¹	40-60g	60-70g
Starchy foods where fat or oil has been added before or during the cooking process: include roast or sauted potatoes, chips, potato wedges, pre-prepared potato products, fried rice, bread, or noodles, hash browns, garlic bread, Yorkshire pudding, chapattis and naan made with fat, pancakes and waffles cooked in oil.			
Potatoes cooked in oil or fat: includes roast or sauted potatoes, chips, potato wedges, other processed potato products such as waffles.	Raw	70-100g	120-150g
Garlic bread (as an accompaniment).	Dried	20g 1 slice	40g 2 slices
Bread with no added fat or oil must be available every day. All types of plain bread with no added fat or oil, including brown, wholemeal, granary, white, mixtures of white and wholemeal, pitta, rolls, chapattis, naan, ciabatta, and herb bread.			

Note: Wholegrain (i.e. made with, or containing whole grain): starchy wholegrains include wholemeal, granary flour, bread and bread products, wholewheat pasta, brown rice and oats. Higher-fibre white bread, 50/50 bread, half/half wholegrain and white mixes, such as 50/50 mix of brown and white rice, 50/50 whole wheat and white pasta.

¹ Based on average weight change of wholemeal and white spaghetti, pasta shapes and noodles



Fruit and Vegetables

This includes vegetables in all forms, including fresh, frozen, canned, dried and juiced, as well as pulses such as beans and lentils. Vegetables or salad should be offered as an accompaniment to every meal, in addition to any vegetables used as ingredients in composite dishes such as casseroles and stews. Potatoes are classed as a starchy food and are not included in this food group.

Typical portion sizes (grams/mls/household measures) raw and cooked food

Food		Primary 4-10 year olds	Secondary 11-18 year olds
Vegetables or mixed salad, salad bars.	Raw	40-60g	80g
Vegetables including peas, green beans, sweetcorn, carrots, mixed vegetables, cauliflower, broccoli, swede, turnip, leek, Brussels sprouts, cabbage, spinach, spring greens.	Cooked	40-60g 1-2 tablespoons	80g 2-3 tablespoons
Pulses include lentils, kidney beans, chick peas.	Dried ¹	15-20g	30g
	Cooked	40-60g 1-2 tablespoons	80g 3 tablespoons
Baked beans in tomato sauce (as an accompaniment).	Cooked	50-70g 1-2 tablespoons	90-100g 3 tablespoons
Vegetable-based soup.	Cooked	200-250g	250-300g
Fruits in all forms, including fresh, frozen, canned, dried and juiced. Fruits can be provided within other dishes - for example, fruit-based desserts such as crumbles.			
Large-size fruit e.g. apples, pears, bananas, peaches.	Raw	75-100g 1 small sized fruit with skin	100-150g 1 medium sized fruit with skin
Medium-size fruit e.g. satsumas, tangerines, plums, apricots, kiwis.	Raw	50-100g 1 fruit with skin	80-100g 1-2 fruits with skin
Small fruits e.g. strawberries, raspberries, grapes.	Raw	40-60g 10-15 fruits	80g 15-20 fruits
Dried fruit e.g. raisins, sultanas, apricots.	Dried	15-30g 1/2-1 tablespoon	25-30g 1 tablespoon
All fruit-based desserts should have a content of at least 50% fruit measured by weight of the raw ingredients (e.g. fruit crumble, fruit pie, fruit sponge, fruit cobbler, fruit jelly). Fruit used as decoration or jam added to a dessert does not count towards this standard.			
Fruit salad, fruit tinned in juice and stewed fruit.	Raw/cooked	65-100g (40 g min fruit) 2-3 tablespoons	130g 80g min fruit) 3-4 tablespoons

Practical advice regarding vegetable intake?

- Current intake?
- Veg snacks?
- Meal portion plate to increase portion?



My 5 A DAY chart

BRITISH Nutrition FOUNDATION

	1 portion	2 portions	3 portions	4 portions	5 portions	Daily Total	I tried something new (tick)
Monday							●
Tuesday							●
Wednesday							●
Thursday							●
Friday							●
Saturday							●
Sunday							●

October 2016. Next review due October 2019.
For more information on the sources used in this text, please contact postbox@nutrition.org.uk

Fruit and Vegetables

We should be trying to eat at least **5 portions** of a variety of fruits and vegetables every day.

- ◆ Fruit and vegetables should make up just over a third of what we eat each day.
- ◆ They can provide fibre, and lots of essential vitamins and minerals.
- ◆ Eating lots of them may help you maintain a healthy weight – they are naturally low in calories and fat!
- ◆ Try and choose lots of different coloured fruits and veg – different kinds contain different combinations of important nutrients our bodies need to stay healthy.

What counts?	Example portion size
Fresh fruit and vegetables	80g
Frozen fruit and vegetables	80g
Canned fruit and vegetables	80g
Dried fruit	30g
100% unsweetened fruit and veg juice	150ml
Smoothies	150ml

Remember
Unsweetened 100% fruit or veg juice and smoothies, will only count as a maximum of **1 of your 5 A DAY**, no matter how much you have!

TOP TIP
If you don't like chopped vegetables, try grating carrots or courgettes into your food to add flavour and texture or make a tomato sauce with added vegetables and blend.

TOP TIP
Try a new fruit or vegetable each week to increase variety.

Why eat these foods?
Different fruit and vegetables contain:

- ✓ **Vitamin C** - important for maintaining healthy busy tissues.
- ✓ **Vitamin A** - important for maintenance of normal vision, skin and the immune system.
- ✓ **Folate** - important for normal and healthy blood formation.
- ✓ **Fibre** - helps to maintain a healthy gut.
- ✓ **Potassium** - helps to maintain a healthy blood pressure and is also important for the normal functioning of the nervous system.

Menu ideas to increase fruit and veg intake:

Breakfast Ideas
Add a chopped banana and strawberries to your morning wholegrain cereal or porridge.
Enjoy a 150ml glass of unsweetened 100% fruit juice alongside your breakfast.

Lunch Ideas
Sandwiches – add some cucumber, lettuce and tomato
Soup – add extra seasonal veg and blend into your soup
Baked potato – with your filling, why not have a side salad

Dinner Ideas
You could try adding peas, carrots or spring onions through your mashed potatoes; or, sprinkle some extra veg onto your pizza like sweetcorn, pineapple, pepper and/or mushrooms.

TOP TIP
Dried fruit can stick to teeth which may lead to tooth decay, so it's best to keep dried fruit to mealtimes and not between meals.

This resource is designed for consumption by the general public. For more about health and nutrition, visit www.nhs.uk. Next review due October 2019.

Resources for fruit & veg

BDA The Association of UK Dietitians

Food Fact Sheet: Fruit and vegetables - how to get five-a-day

There are many health benefits of eating more fruits and vegetables, so getting our 'five-a-day' is a good idea for everyone.

This Food Fact Sheet explores why fruits and vegetables are such great additions to your diet and gives you tasty examples of how to get your five-a-day.

Why are fruits and vegetables so beneficial?

As well as tasting great, fruits and vegetables are incredibly versatile, packed with essential vitamins and minerals, a variety of phytochemicals (naturally occurring plant substances) and fibre that are vital for good health.

Many of these nutrients also act as powerful antioxidants, protecting the body from harmful free radicals (found in pollutants) that can cause disease.

Studies have shown that people who eat plenty of fruit and veg have a lower risk of developing many diseases, including high blood pressure, obesity, heart disease and stroke, and some cancers (including mouth, throat, stomach, bowel and lung cancers).

In fact, it has been estimated that diet is likely to contribute to the development of one-third of all cancers, and that eating a healthy, balanced diet, with more fruits and vegetables is the second most important cancer prevention strategy, after stopping smoking.

How much is a portion?



NHS

Search

Health A-Z Live Well Mental health Care and support

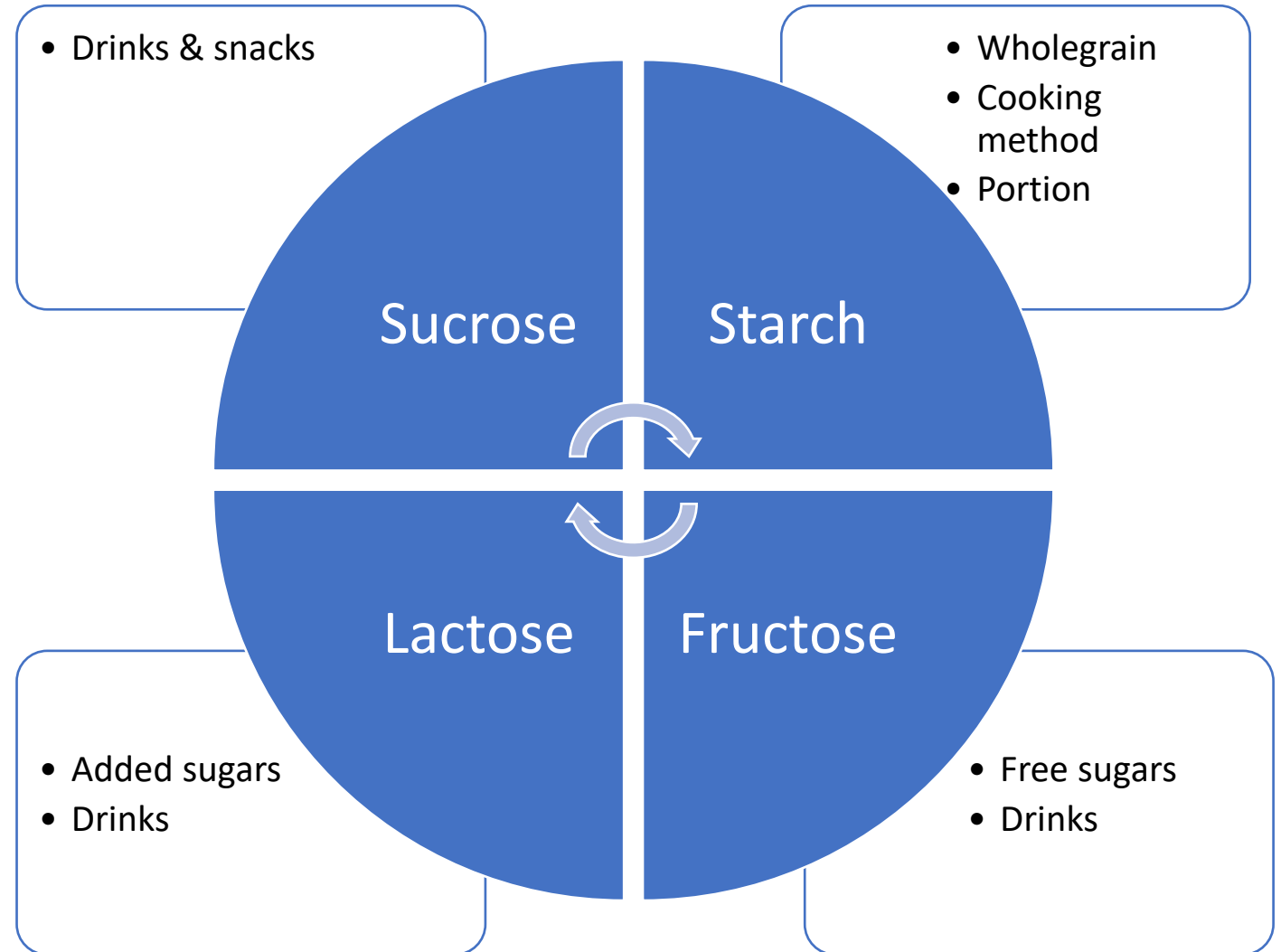
Home > Live Well > Eat well > 5 A Day

5 A Day portion sizes

Everyone should have at least 5 portions of a variety of fruit and vegetables every day. An adult portion of fruit or vegetables is 80g.

Refined sugar

- What advice do you currently give?
- Do you discuss types of sugar or simply advise low sugar?
- Consider language used



Fluid intake

- “found a significant association between inadequate hydration and elevated BMI and inadequate hydration and obesity, even after controlling for confounders.
- This relationship has not previously been shown on a population level and suggests that water, an essential nutrient, may deserve greater focus in weight management research and clinical strategies”



[Ann Fam Med](#). 2016 Jul; 14(4): 320–324.

doi: [10.1370/afm.1951](https://doi.org/10.1370/afm.1951)

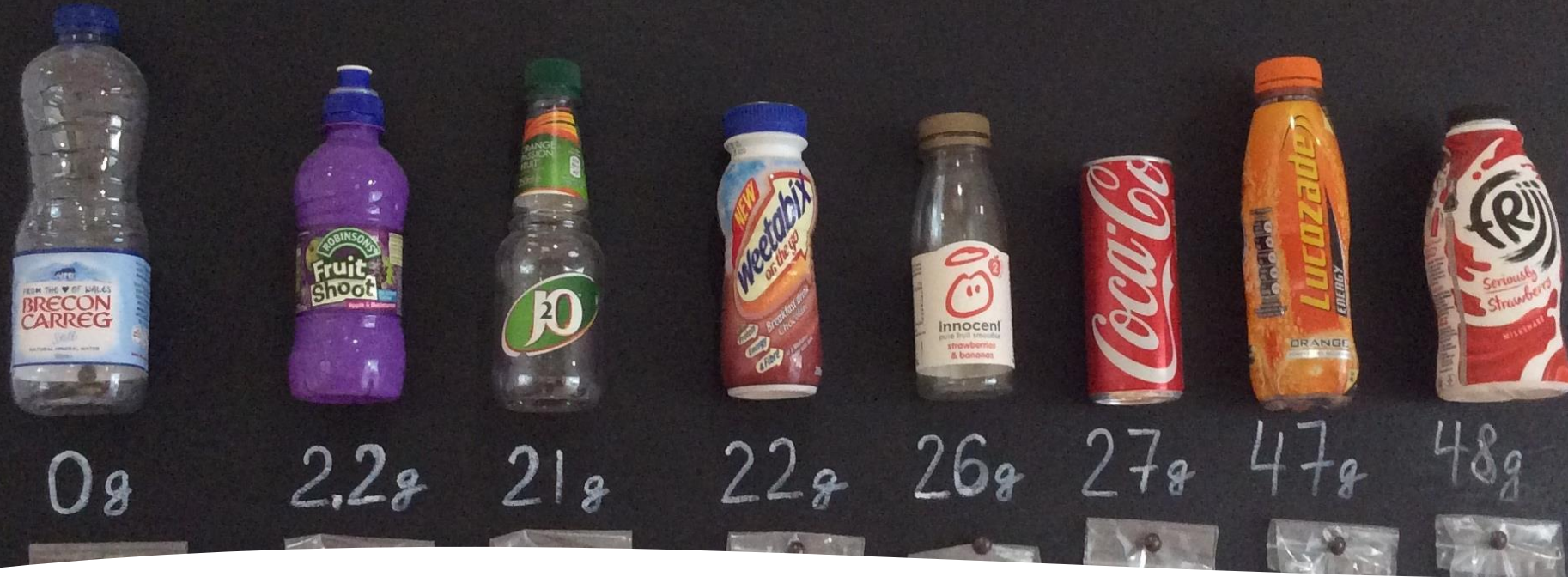
PMCID: PMC4940461

PMID: [27401419](https://pubmed.ncbi.nlm.nih.gov/27401419/)

Inadequate Hydration, BMI, and Obesity Among US Adults: NHANES 2009–2012

[Tammy Chang](#), MD, MPH, MS,^{1,2,3} [Nithin Ravi](#), MPH,² [Melissa A. Plegue](#), MA,¹ [Kendrin R. Sonnevile](#), ScD, RD,⁴ and [Matthew M. Davis](#), MD, MAPP^{3,5,6}

Fluid intake



- What is child/young person drinking?
- 1 pint cola = 240kcal (61g sugar)
- 2L cola / day = 840kcal (212g sugar)
- 1 pint FCM = 376kcal
- 1 pint orange juice = 205kcal (45g sugar)
- 1x 250ml can red bull = 115kcal (28g sugar)

[Obesity \(Silver Spring\)](#), 2018 Jun; 26(6): 1034–1042.
Published online 2018 Apr 14. doi: [10.1002/oby.22172](https://doi.org/10.1002/oby.22172)

PMCID: PMC6001698
PMID: [29656571](https://pubmed.ncbi.nlm.nih.gov/29656571/)

Snacking

Daily Snacking Occasions and Weight Status Among US Children Aged 1 to 5 Years

[Alexandria Kachurak](#),¹ [Adam Davey](#),² [Regan L. Bailey](#),³ and [Jennifer O. Fisher](#)^{✉1}

Conclusion Snacking frequency and weight are positively associated among US children 1 to 5 years old, with most consistent associations seen among children < 2 years old and when considering all foods/beverages consumed between meals.

[Nutrients](#). 2019 Jul; 11(7): 1486.

Published online 2019 Jun 29. doi: [10.3390/nu11071486](https://doi.org/10.3390/nu11071486)

PMCID: PMC6682988

PMID: [31261906](https://pubmed.ncbi.nlm.nih.gov/31261906/)

Associations between Snacking and Weight Status among Adolescents 12–19 Years in the United States

[Gina L. Tripicchio](#),^{1,*} [Alexandria Kachurak](#),¹ [Adam Davey](#),² [Regan L. Bailey](#),³ [Lauren J. Dabritz](#),¹ and [Jennifer O. Fisher](#)¹

Conclusion The nationally representative findings in this study provide evidence that US adolescents with OW and OB consume more snacks daily and more calories at each snacking occasion compared to adolescents with NW. Adolescents with OW and OB also consume greater amounts of added sugar, saturated fat and sodium from snacks than adolescents with NW, but consume snacks with a lower average energy density than NW adolescents.

Snacking guidance

- *What do you mean by snacking? Be specific – anything eaten/ drunk in between a meal*
- *What is current snacking?*
 - *How often*
 - *When*
 - *Where are they?*
 - *What do they choose?*



Suitable snacks



Muffins with cream cheese and cucumber sticks



Yoghurt with mandarin segments



Toasted malt loaf with strawberries



Sugar snap peas with low-fat hummus



Sliced fruit with yoghurt



Homemade popcorn



Toasted pitta with tuna, mayo and yoghurt dip



Mashed avocado and boiled egg



Cheesy oatcakes with tomatoes



Rice cakes with low-fat cream cheese and cucumber



Low-fat hummus with veggie fingers



Boiled eggs

- Consider...
- Portion
- Carb content
- Kcal content





Dietetic assessment proforma: Type 2 Diabetes

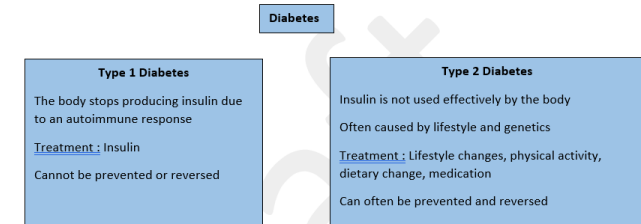
Patient Name:		Date of clinic:	
Date of birth:		Clinic appointment number:	
Hosp. No:		Address:	
Weight at diagnosis	Height at diagnosis		
BMI at diagnosis	HbA1c at Diagnosis		
5% weight loss	10% weight loss	Current weight	Current height
Complications of Type 2 Diabetes			
Blood pressure at diagnosis		Current Blood pressure	
Cholesterol / TAG at diagnosis		Current cholesterol / TAG	
Sleep Apnoea present at diagnosis? YES / NO		Current sleep apnoea? YES / NO	
Weight history:		Family weight history:	
Motivation to make dietary changes			



Dietary Management of Type 2 Diabetes

What is diabetes?

Diabetes is a lifelong condition that causes blood glucose levels to become too high. The two main types of diabetes are type 1 and type 2. The vast majority of children with diabetes have Type 1 diabetes, but an increasing number are now developing Type 2 diabetes. All types of diabetes cause blood sugar levels to become too high but do so in different ways. |



What is type 2 diabetes?

Resources for Stage 1

Healthy Snacking with Type 2 Diabetes

To achieve and maintain a healthy weight it is important to consider the nutrients we get from our snacks. Eating too many snacks can increase the risk of gaining unwanted weight.

The healthiest snack options are fruits, vegetables, low fat milk products, lean meats, and unsalted nuts (do not offer whole nuts to children less than 5 years of age as this is a choking hazard). Snacks high in saturated fat, salt and free sugar, if eaten, should only be eaten in small quantities because they can have a negative impact on heart and dental health.

Planning your snacks is just as important as main meals, especially your **after school** snack. A handy tip is to stock up on healthy snacks at home/school. |

Healthy Snacks with 100 calories or less per portion

Food	Example portion Weight (g)	Carbs (g)	Calories (Kcal)	Snack combination
Fruits				
Raspberries	1 handful (80g)	4	20	Fruit kebab with yoghurt dip
Strawberries	1 handful (85g)	5	26	
Blackberries	1 handful (80g)	7	27	Tinned fruit in juice with

BDA Food Fact Sheet: Portion sizes

This Food Fact Sheet will share the suggested portion sizes of typical foods.

What is a portion of food?

A portion is the amount of a food that you eat at one time, for example how much food you put on your plate at a meal or how much is in a packet.

Why are portion sizes important?

The key to eating a balanced diet is to eat a wide variety of foods in appropriate amounts. Making healthier choices and choosing to eat some foods more often, and in larger amounts, than others.

It is important to be aware of portion sizes, as eating too much or not enough of any type of food can increase your risk of health problems. This is because your body may be getting too much or too little of what it needs to stay healthy.

As every person is different, the recommended number of portions for each food will vary according to age, sex, size, health and other factors, but this sheet provides a good place to get you started.

Carbohydrates – what is a portion?

Type of food	Portion Size	What does this look like?
Bread	34g-36g	One medium slice
Pasta (boiled)	75g uncooked / 150g cooked	Two to three tablespoons
Rice (boiled)	50g uncooked / 150g cooked	Two to three tablespoons
Potatoes (boiled with skin)*	175g	Three (egg-sized) or five to six (thumb-sized new potatoes)

BDA Food Fact Sheet: Healthy snacks

Snacking worries

Many people think snacks are unhealthy additions to their eating pattern and that snacking leads to weight gain. Research shows that this can be the case, other studies indicate that people who snack can have trimmer waistlines and many snacks can make useful contributions to your overall diet.

The key to whether snacking is good or bad for you is which snacks you choose, and how much of them you eat. If you choose carefully and plan ahead, snacks can be a healthy part of your diet.

Snacks provide energy for your activities throughout the day and they can provide valuable nutrients such as vitamins, minerals, protein and fibre. They may also stop you overeating at the next meal by preventing you from becoming too hungry.

On the downside, some snack foods can be a source of extra fat, sugar and salt, so choose carefully and keep portion sizes sensible.

Focus on the food groups

Choose snacks from the four main food groups, try to vary which group throughout the week and if you are watching your weight limit your choices from the carbohydrate section:

1. Fruit and vegetables
2. Carbohydrates - bread, rice, potatoes, pasta and other cereals
3. Protein - meat, fish, eggs and beans
4. Milk and dairy foods

This is a good way to get lots of vitamins and minerals. You could also think about any food groups you may not be eating enough of, and try to add some in as snacks.

Fruit and vegetables



Stage 2

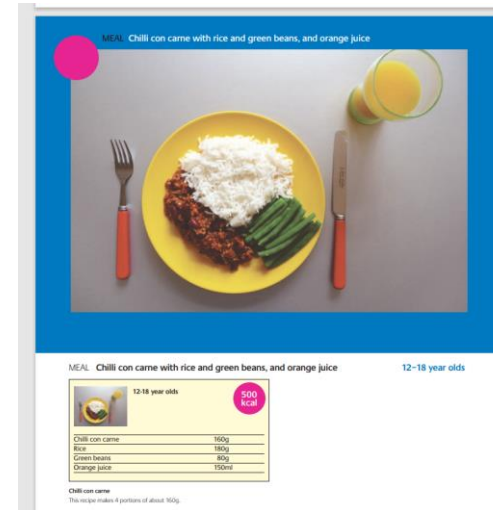
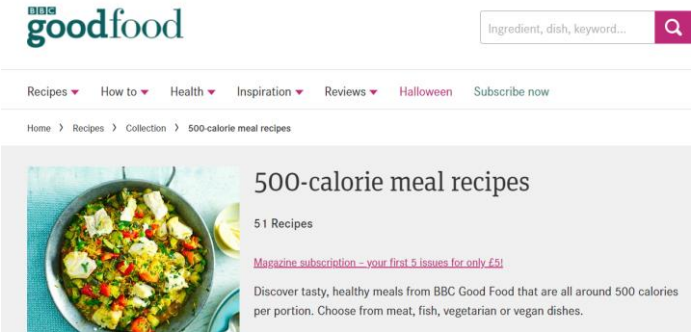
- When “normalising eating advice” has not yielded sufficient weight loss / change in BMI
- Progress to a more prescribed meal plan / portion system
- Patient does not need to know they are starting stage 2 as do not want sense of failure doing it on their own, simply progression of changes

Stage 2

- Prescriptive portions – kind permission of BARTS Health resources
- Total kcal requirement based on Schofield/Mifflin calculating BMR with activity factor and allowing for deficit of 600-1000kcal to promote weight loss
- 40-50% total energy from carbs (minimum 130g / day)
- Minus carbs from fruit x2 portions and 3 portions dairy/day (BDA portion guide)
- Resulting carb prescription for day split between the 3 meals
- This can vary depending on current eating habits

Meal planning considerations

- Likes, dislikes
- Cooking ability / skill
- Cooking facilities
- Budgeting
- Inclusion of whole family
- Resources



The Slimming World blog





What about physical activity?

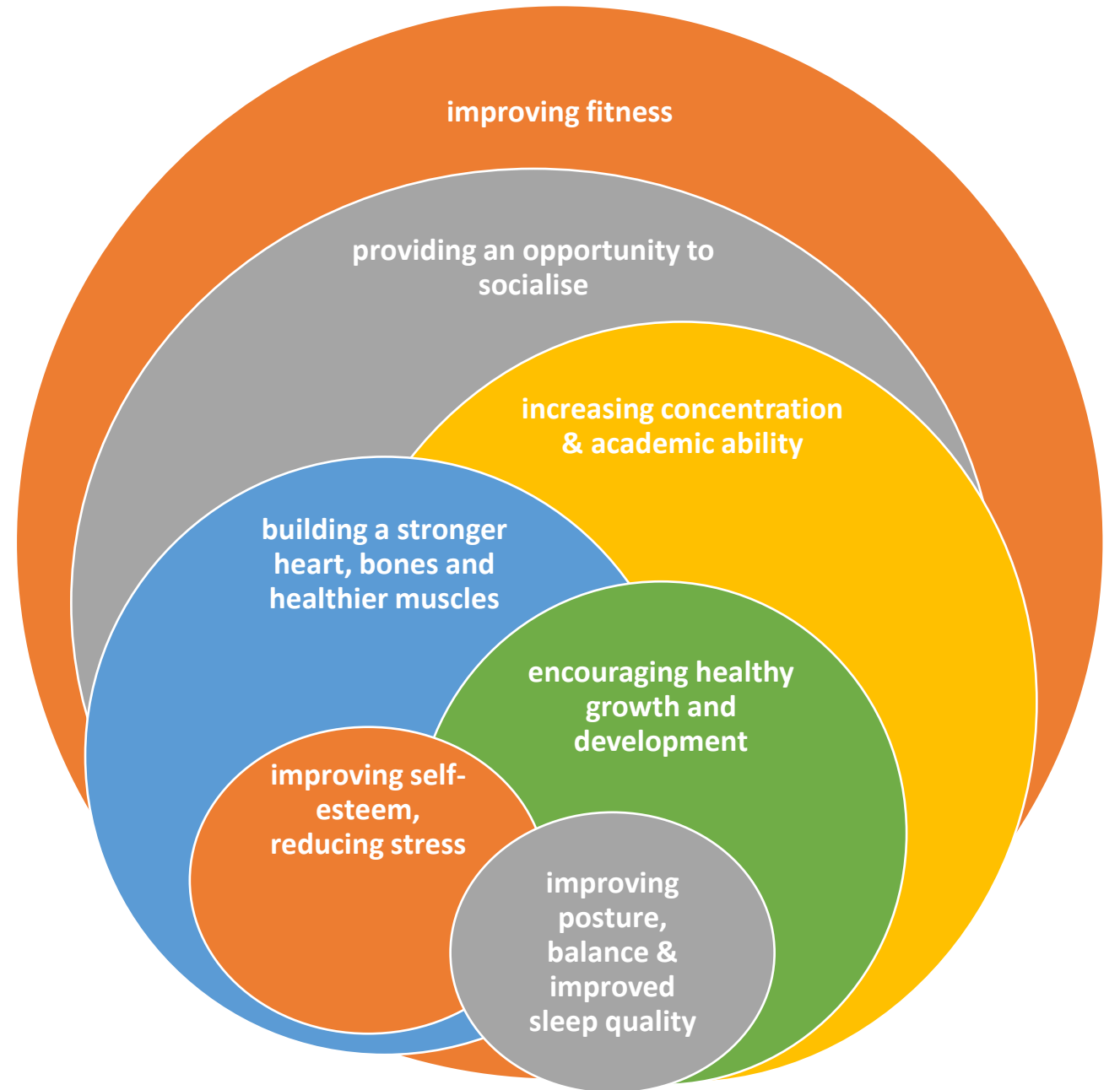
*Activity / Exercise / being less
sedentary..whatever you call it....what is it?
Language matters*

*ACTIVITY – “the condition in which things are happening or being
done”*

*EXERCISE – “activity requiring physical effort, carried out to sustain or
improve health and fitness”*

SEDENTARY – “tending to spend much time seated; somewhat inactive”

We know what it is...but why do we need to do it?



We know why we need to do it...but how much should we do?



How much activity do we need 5-18 yr olds?

- Children and young people need to do 2 types of physical activity each week:
- aerobic exercise
- exercises to strengthen their muscles and bones
- Children and young people aged 5 to 18 should:
- aim for an average of at least 60 minutes of moderate or vigorous intensity physical activity a day across the week
- take part in a variety of types and intensities of physical activity across the week to develop movement skills, muscles and bones
- reduce the time spent sitting or lying down and break up long periods of not moving with some activity. Aim to spread activity throughout the day

What is moderate activity?

- Moderate intensity activities will raise your heart rate, and make you breathe faster and feel warmer.
- One way to tell if you're working at a moderate intensity level is if you can still talk, but not sing.
- Children and young people should do a range of different activities across the week.

- Examples include:
 - walking to school or walking the dog
 - playground activities, including jumping, running and catching
 - physical education
 - sports, like football or tennis
 - swimming
 - skipping
 - dancing
 - skateboarding or rollerblading
 - cycling

What activities strengthen muscles and bones?

- Examples include:
- gymnastics
- football
- jumping
- martial arts
- resistance exercises with exercise bands, weight machines or handheld weights
- sit-ups, press-ups and other similar exercises

Physical activity for children and young people (5 – 18 Years)



BUILDS
CONFIDENCE &
SOCIAL SKILLS



MAINTAINS
HEALTHY
WEIGHT



DEVELOPS
CO-ORDINATION



STRENGTHENS
MUSCLES
& BONES



IMPROVES
SLEEP



IMPROVES
CONCENTRATION
& LEARNING



IMPROVES
HEALTH
& FITNESS



MAKES
YOU FEEL
GOOD

Be physically active

Spread activity
throughout
the day

Aim for an
average of at least
60
minutes per day
across week

All activities
should make you
breathe faster
& feel warmer

 PLAY	 RUN/WALK	 BIKE	 ACTIVE TRAVEL
 SWIM	 SKATE	Activities to develop movement skills, and muscle and bone strength ACROSS WEEK	
 SPORT	 PE		
 SKIP	 CLIMB	 WORKOUT	 DANCE

Get strong

INACTIVITY

Move more

Find ways to help all children and young people accumulate an average of at least 60 minutes physical activity per day across the week

What about adults (parents)?

- Adults should do some type of physical activity every day. Exercise just once or twice a week can reduce the risk of heart disease or stroke.
- Speak to your GP first if you have not exercised for some time, or if you have medical conditions or concerns. Make sure your activity and its intensity are appropriate for your fitness.
- Adults should aim to:
 - do strengthening activities that work all the major muscle groups (legs, hips, back, abdomen, chest, shoulders and arms) on at least 2 days a week
 - do at least 150 minutes of moderate intensity activity a week or 75 minutes of vigorous intensity activity a week
 - spread exercise evenly over 4 to 5 days a week, or every day
 - reduce time spent sitting or lying down and break up long periods of not moving with some activity

Physical activity for adults and older adults

 Benefits health

 Improves sleep

 Maintains healthy weight

 Manages stress

 Improves quality of life

Reduces your chance of

Type II Diabetes -40%

Cardiovascular disease -35%

Falls, depression etc. -30%

Joint and back pain -25%

Cancers (colon and breast) -20%

Some is good,
more is better

Make a start today:
it's never too late

Every minute
counts

Be active

at least
150
minutes
moderate intensity
per week
increased breathing
able to talk

OR

or a combination of both

at least
75
minutes
vigorous intensity
per week
breathing fast
difficulty talking



Minimise sedentary time
Break up periods of inactivity



Improve balance
2 days a week



Physical activity assessment

- Futile to simply say do more..... But you can say sit down less!
- What is their understanding of activity
- What do they currently do?
- What would they like to do? What is stopping them?
- Identify barriers to create solutions

What should we be mindful of?

- General health
 - Asthma – GP review?
 - Joint pain – Physio / podiatry review?
 - Blood pressure / HR
- Confidence to take part in activity
- Understanding of how they may feel day after, 2 days after

Where can they find info about activities?

← → ↻ 🏠 activesuffolk.org/activities ▶ ☆



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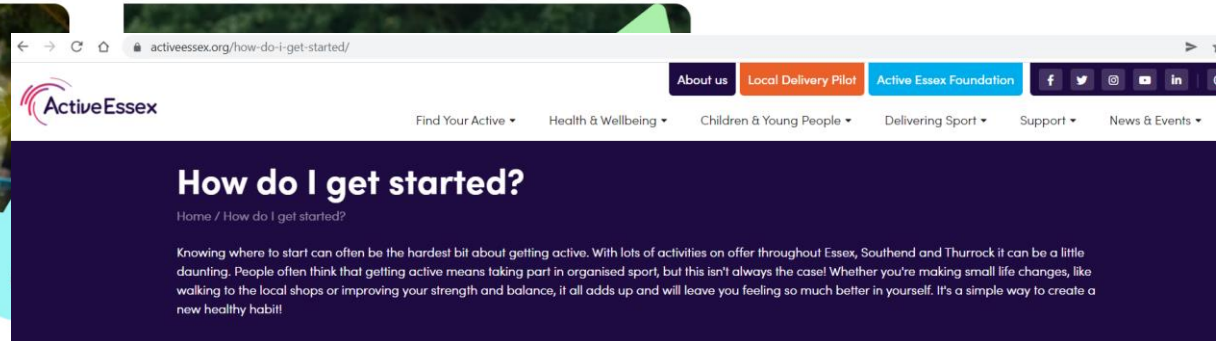
← → ↻ 🏠 activenorfolk.org/public/activity-finder/ ▶

Active Norfolk / For the Public / Activity Finder

Introducing Every Move: Norfolk's brand new Activity Finder!



I want to find activities near me



We want to help you find that new healthy habit and the activity that's right for you! No matter your current activity levels, we all need to start somewhere and below you will find advice and guidance, based on your current activity level.

I am a complete beginner, don't do any physical activity and have no idea where to start (+)

I used to be active but have recently lost my motivation (+)

I am living with a disability/ health condition and I know physical activity will benefit me, but I don't know what I can do safely (+)

Every Move is a **brand new activity finder** for the people of N

The new, easy-to-use website has been designed with the use

Activity resources

Physical activity for children and young people (5–18 Years)

BUILDS CONFIDENCE & SOCIAL SKILLS
 DEVELOPS CO-ORDINATION
 IMPROVES CONCENTRATION & LEARNING
 MAINTAINS HEALTHY WEIGHT
 IMPROVES SLEEP
 MAKES YOU FEEL GOOD

Be physically active

Spread activity throughout the day

Aim for an average of at least **60 minutes per day** across week

All activities should make you breathe faster & feel warmer

PLAY
 RUN/WALK
 BIKE
 ACTIVE TRAVEL
 SWIM
 SKATE
 SPORT
 PE
 SKIP
 CLIMB
 ACROSS WEEK
 WORKOUT
 DANCE

Get strong

INACTIVITY

Move more

Find ways to help all children and young people accumulate an average of at least 60 minutes physical activity per day across the week

UK Chief Medical Officers' Physical Activity Guidelines, 2019

NHS Exercise guidelines

Physical activity guidelines for children and adults.

[Physical activity guidelines for adults aged 19 to 64](#)
[Physical activity guidelines for older adults](#)
[Physical activity guidelines for children and young people](#)
[Physical activity guidelines for children \(under 5 years\)](#)
[Why we should sit less](#)
[Fitness advice for wheelchair users](#)

HEART MATTERS

More than a magazine: information, inspiration and support

Home > Information & support > Heart Matters magazine > Activity > Walking > Walking inspiration > 11 free walking apps

11 free walking apps

If you've got an iPhone or an Android-based smartphone and enjoy walking, downloading a relevant app could help you get the most from your outings. Each of our selection has a different feature to enhance your walks, from social functions that involve your friends to maps that encourage exploration.

We've listed eleven free walking apps to get you started.

1. MapMyWalk GPS for iPhone, Android or Windows

MapMyWalk allows you to see the time spent walking, distance, pace, speed, elevation, and calories burned. When you finish,

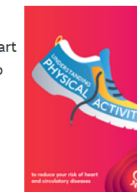
Understanding physical activity

This short leaflet explains why being inactive increases your risk of heart and circulatory diseases. It tells you how active you need to be to help your heart, and gives you tips for building physical activity into your everyday life.

GET IT NOW **GET IT NOW - WELSH**

To get you moving...

- do our [10 minute online living room workout](#) - no equipment needed!
- find out more about [getting active](#)
- [step up your activity](#)







10 Minute Shake Up games

Get the kids moving with these fun games inspired by some of their favourite Disney characters.

These boredom-busting activities will help them reach the 60 active minutes they need every day!

<p>Large chocolate milkshake = 468kcal</p> 	<p>Large Oasis = 83kcal</p> 
<p>Large Coca-Cola Zero = 2kcal</p> 	<p>Tropicana = 103kcal</p> 

<p>Walking 22 minutes = 100 calories</p> 	<p>Climbing Stairs 10 minutes = 100 calories</p> 
<p>Dance 30 minutes = 100 calories</p> 	<p>Yoga 31 minutes = 100 calories</p> 

Websites and Phone Apps to support a healthy lifestyle

Making healthy lifestyle changes can be difficult if you are doing it on your own. Making changes as a family often results in longer term successful sustainable habits. Having support from others can provide motivation and encourage you to keep going to reach your goals.

Here are some Apps for the whole family to use to help create a positive environment and help reach your goals.

Healthy Eating:

Change4Life Smart recipes



<https://www.nhs.uk/change4life/recipes>

Change4Life Food Scanner



<https://www.nhs.uk/change4life/food-scanner>

One You Easy Meals App

Public Health England



NHS lose weight - Better Health App



<https://www.nhs.uk/better-health/lose-weight>

Physical activity and Type 2 Diabetes

Physical activity should be a normal part of a child / young persons day. Research shows that it is beneficial for keeping us healthy, helping our mood and a great opportunity to have fun with family and friends. Scientists have also shown that exercise has an important role to play in reducing risks of other illnesses when we are older and keep our heart healthy.

Unfortunately children are less active today than in previous years, maybe due to more people having lifts in cars to school, less time playing outside and more time inside playing on computer games and consoles. Research suggests that inactive children are likely to become inactive adults. This is why it's important to encourage exercise and keeping fit from a young age.

What are the benefits of physical activity and exercise?

- improving posture, balance & improved sleep quality
- improving self-esteem, reducing stress
- encouraging healthy growth and development
- building a stronger heart, bones and healthier muscles
- increasing concentration & academic ability
- providing an opportunity to meet & spend time with friends

Summary

- Team approach using the same language
- Raise importance of diet and activity as treatment
- No mixed messages regarding diet
- Provide follow up....sustained weight loss takes time
- Language matters
- Lets get it right at diagnosis....complications within 2-2.5yrs of diagnosis

