

The Dietary Management of Cholesterol in Practice

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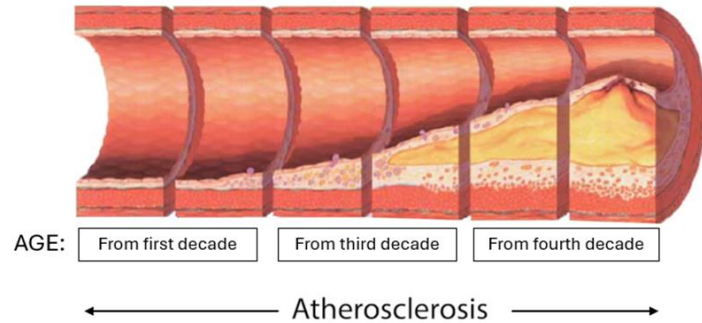
www.heartuk.org.uk

Outline of the Talk...

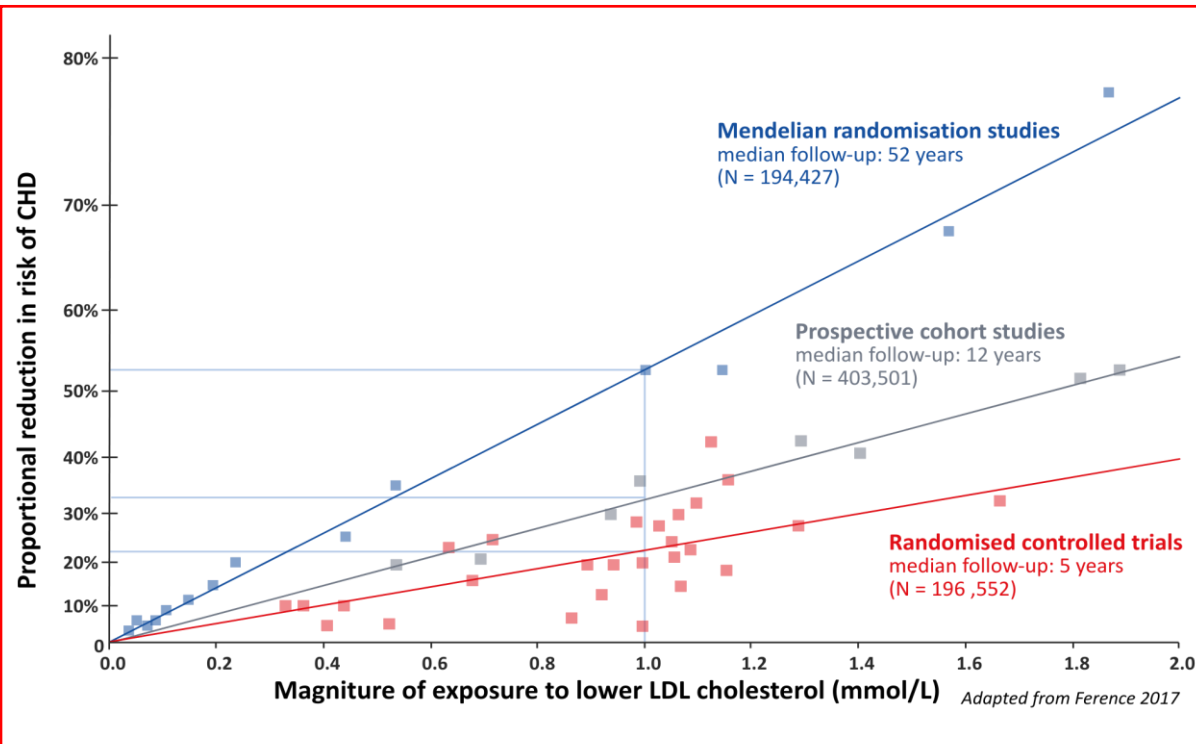
- Why focus on cholesterol?
- Nutrients that impact cholesterol
- Foods that impact cholesterol
- Dietary patterns shown to lower cholesterol and CVD risk
- How to put this into practice



Why Focus on Cholesterol?



- **LDL cholesterol** has a **causal** and **cumulative** effect on **CVD risk**.
- **Prolonged exposure to lower LDL cholesterol** from early life is associated with **a greater CVD risk reduction**.

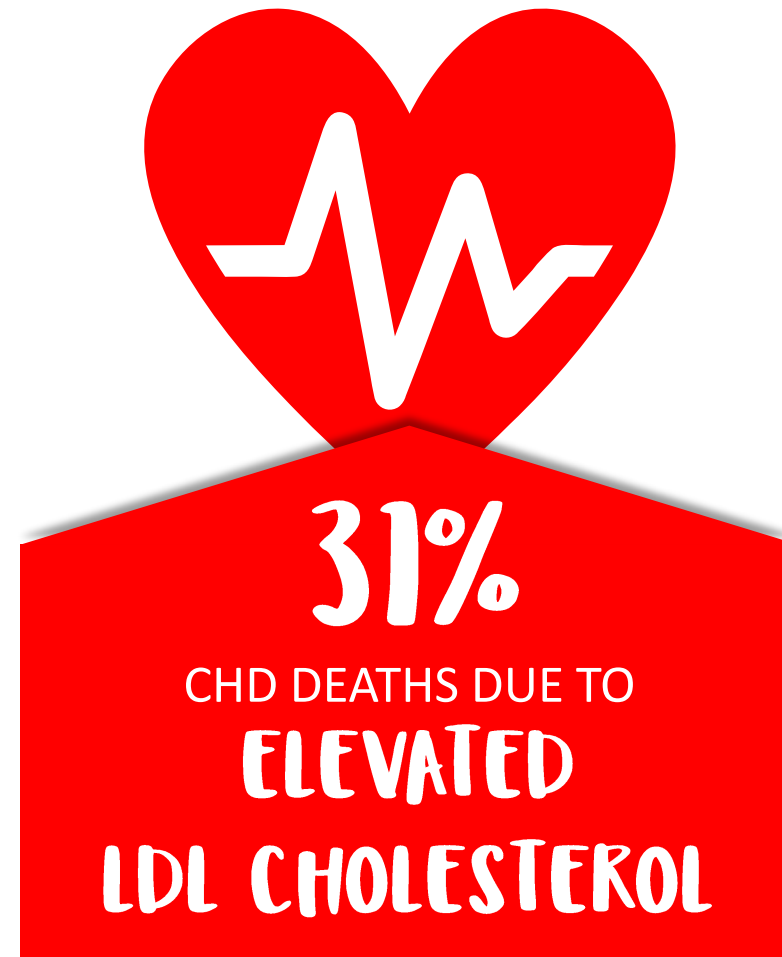
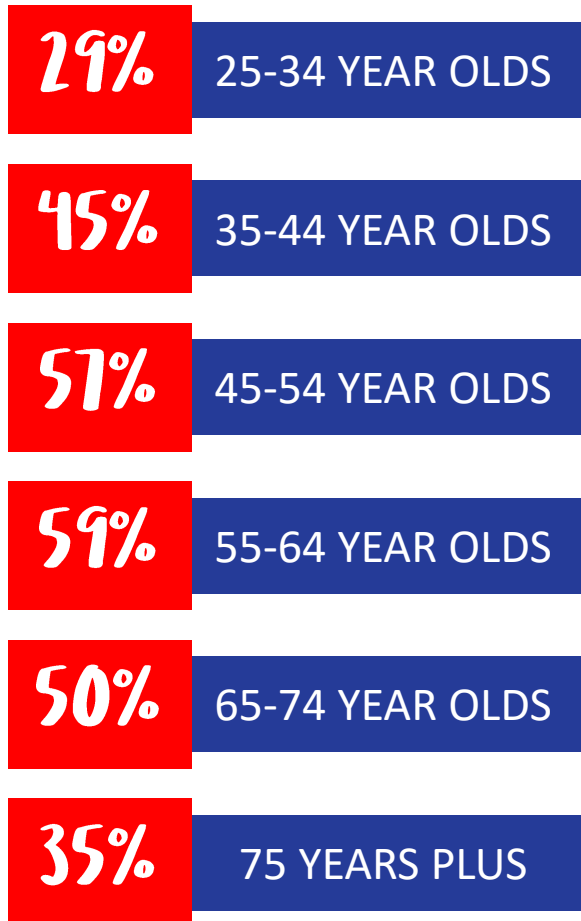


A 1 mmol/L reduction in LDL cholesterol is associated with:

- A 23% reduction in atherosclerotic CVD risk over 5 years
- Up to a 30% reduction over 12 years
- Up to a 50% reduction over 50 years

KEEPING LDL CHOLESTEROL LOWER, FOR LONGER, REDUCES CVD RISK

Over HALF of 45-65 Year Olds in the UK Have High Cholesterol...

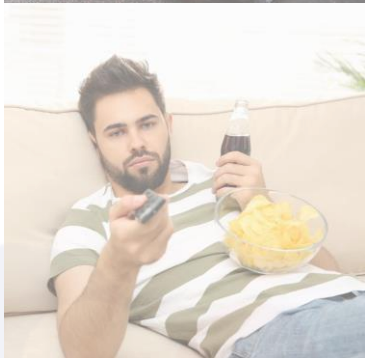


What Causes High LDL Cholesterol?

Modifiable

Unhealthy Diet

- Obesity
- Sedentary Lifestyle



Non-Modifiable

- Age
- Gender
- Genetics
- Medicines
- Other Health Conditions



Nutrients & Foods That Impact Serum Cholesterol

	Magnitude of effect	Level
Lifestyle interventions to reduce TC and LDL-C levels		
Avoid dietary trans fats	++	A
Reduce dietary saturated fats	++	A
Increase dietary fibre	++	A
Use functional foods enriched with stanols/ sterols	++	A
Reduce excessive body weight	++	A
Reduce dietary cholesterol	+	B
Lifestyle interventions to increase HDL-C levels*		
Avoid dietary trans fats	++	A
Increase habitual physical activity	+++	A
Reduce excessive body weight	++	A
Reduce dietary carbohydrates and replace them with unsaturated fats	++	A
Modest consumption in those who take alcohol may be continued	++	B
Quit smoking	+	B

- Adapted from ESC/EAS 2019 Guidelines

Magnitude of the effect

+ = <5%

++ = 5-10%

+++ = >10%

Level of evidence, data sourced from:

- A: Multiple randomized clinical trials or meta-analyses.
- B: A single randomized clinical trial or large non-randomized studies.
- C: Consensus of opinion of the experts and/or small studies, retrospective studies, registries.

HDL-C = High-density Lipoprotein Cholesterol

LDL-C = Low-density Lipoprotein Cholesterol

TC = Total Cholesterol

[Mach et al. 2019 ESC/EAS Guidelines for the management of dyslipidaemias: lipid modification to reduce cardiovascular risk: The Task Force for the management of dyslipidaemias of the European Society of Cardiology \(ESC\) and European Atherosclerosis Society \(EAS\). Eur. Heart J 2020;41:111-118](#)

* Very high levels of HDL-C may not give additional protection

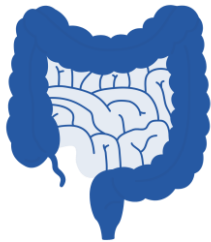
Dietary Mechanisms of Action

Source of Cholesterol

EXOGENOUS

ENDOGENOUS

Cholesterol Absorption



Fibre (viscous)

Foods fortified with
plant stanols / sterols

Dietary cholesterol

Cholesterol Synthesis



Reduce saturated fat &
replace with PUFA/ MUFA

Reduced trans fats

Abdominal obesity

LDL receptors

LDL receptors

XS visceral fat; insulin
resistance; increased
VLDL production

Fat Quality at the Heart of the Matter

Saturated fatty Acids (SFA)

Total & LDL cholesterol

Lauric Acid

C12:0

Coconut oil
(48%)



Myristic Acid

C14:0

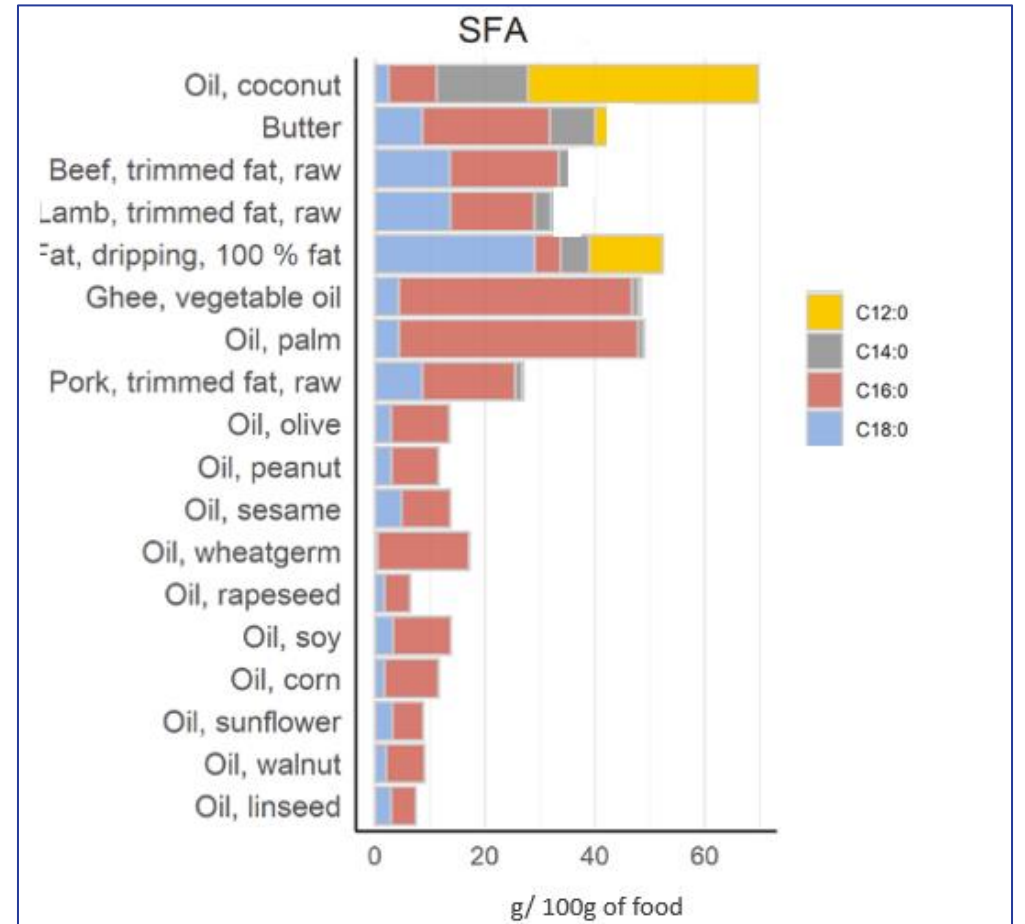
Coconut oil, butter,
dairy milk.



Palmitic Acid

C16:0

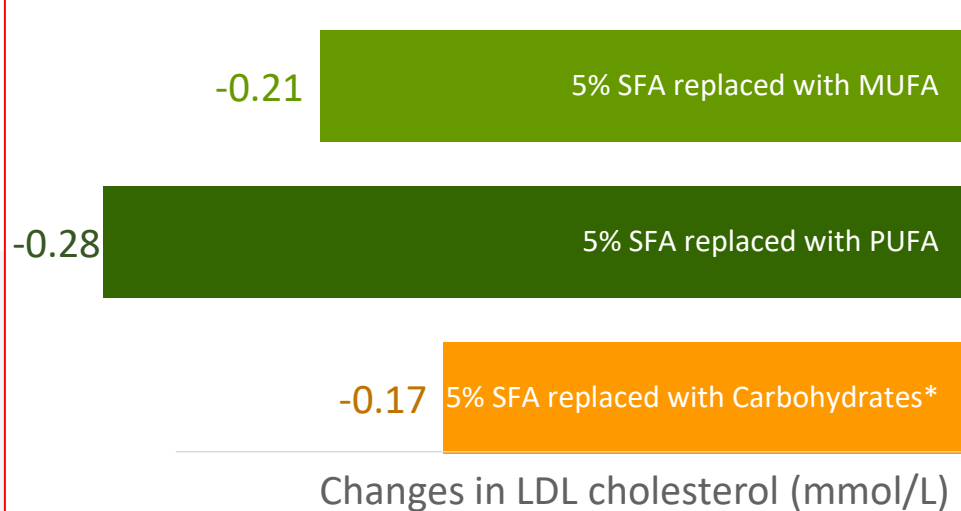
Palm oil, butter,
dairy, animal fat
(pork, beef, chicken).



Fat Quality at the Heart of the Matter

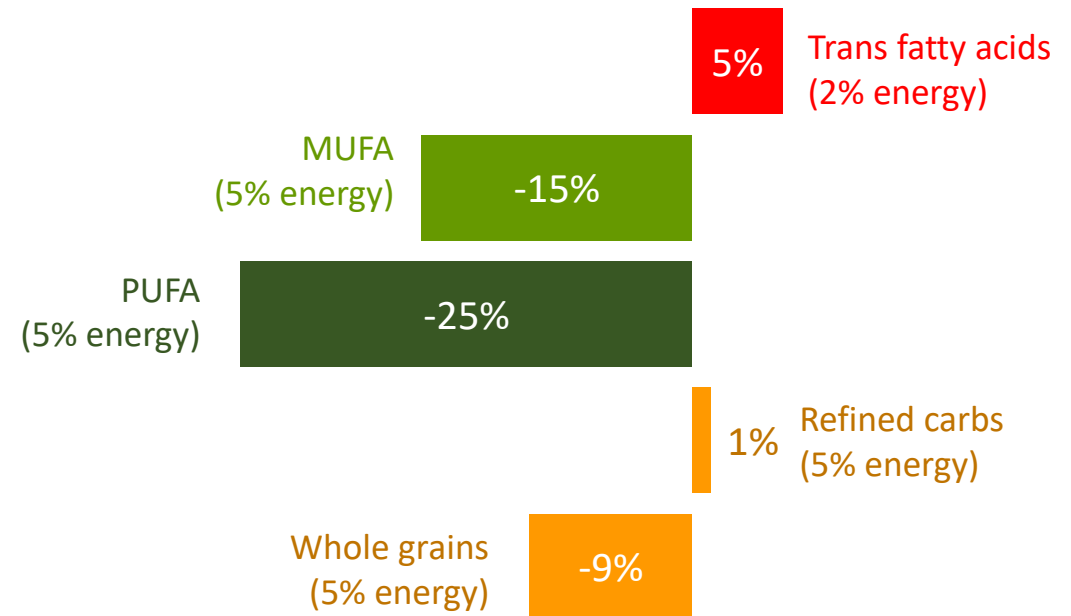
What REPLACES SFA is more important...

Isocaloric Substitution of SFA with Other Nutrients on LDL Cholesterol Levels



* Depends on type of carbohydrates: whole grain vs refined

Isocaloric Substitution of SFA with Other Nutrients on Coronary Heart Disease Risk



Key Sources of SFA in the UK Diet



CVD and Dairy

Meta-analyses of cohort studies (CVD/CHD incidence/mortality)

	EFFECT ON CVD RISK	NOTES
Total Dairy	Neutral effect up to 200g a day	>200g/ day a trend towards increased risk of CHD
Full fat vs Low Fat	Neutral effect up to 200g a day	> 200g/ day the data did not allow a clear trend to be identified
Milk	Neutral effect up to 200mls a day	Some studies showed an increased risk for full fat milk
Yogurt	Neutral to beneficial effect	Serving of yogurt (≥ 200 g per day) is associated with a lower CVD risk
Cheese	Neutral to beneficial effect	Moderate cheese consumption (50 g/day) is associated with a reduced risk of CHD

Dairy Effects on LDL-C

Meta-analyses of randomized controlled trials

	EFFECT ON LDL-C	NOTES
Total Dairy	No effect	Compared dairy foods to fish, red meat, or SSBs
Full Fat Dairy vs Low Fat	No effect	Only 1 meta-analysis
Yogurt	No information provided	
Cheese	Reduction	Cheese was compared to butter
Dairy products - probiotic enriched	Reduction	No dose available

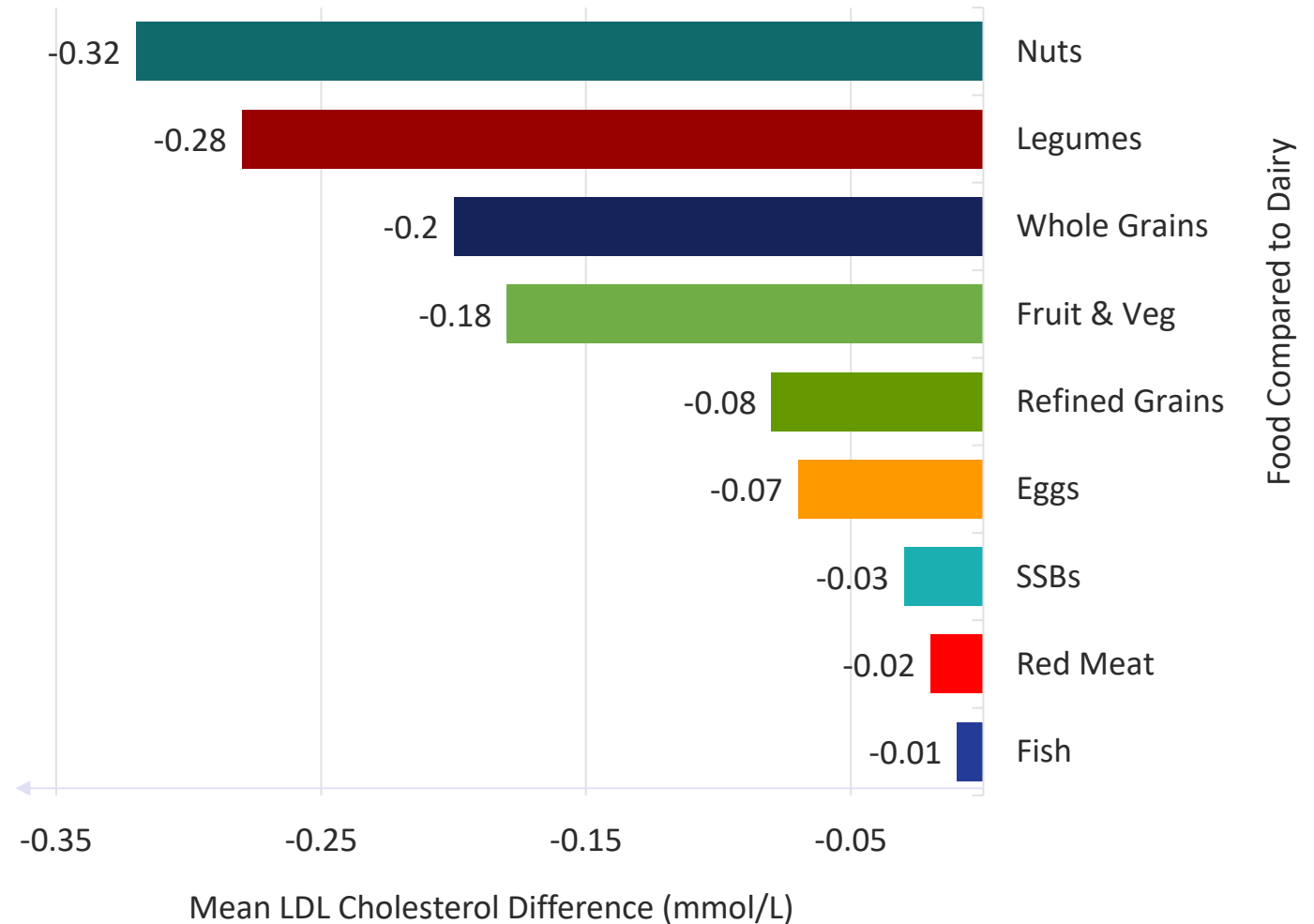
- Consider the comparator food
- Some studies didn't take into consideration the background diet
- Some studies include people with 'normal' cholesterol

Conclusions: Allow healthy people with normal cholesterol a more liberal consumption of **up to 200g/ day of total dairy**. Fermented dairy is preferred e.g., 1 serving a day of yogurt or 3 small servings of cheese a week.

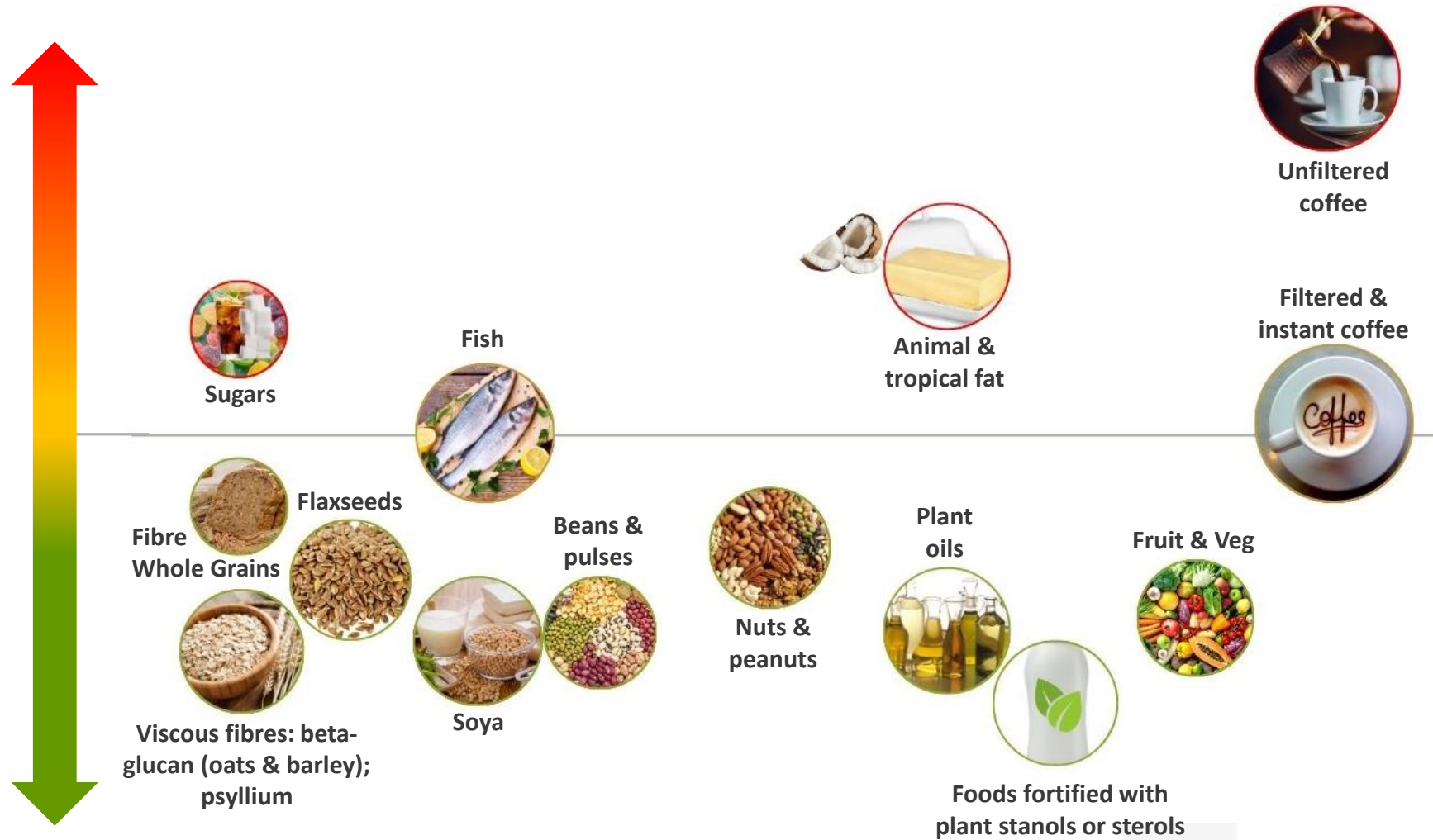
Dairy Advice for Lowering LDL-C

- Replacing dairy saturated fat with PUFAs will always => LDL-C
- Dietary patterns associated with a reduced risk of CVD are either low in dairy, or include low fat dairy (Portfolio, DASH and Mediterranean diet)
- 2021 Scientific Statement From the American Heart Association
 - Choose low-fat or fat-free dairy products instead of full-fat dairy products
- ESC/ EAS 2019 guidance
 - Preferred: Skimmed milk and yogurt
 - To be used in moderation: Low-fat milk, low-fat cheese
 - To be chosen occasionally in limited amounts: Regular cheese, cream, whole milk and yoghurt

Effect of Different Foods on LDL Cholesterol Compared to Dairy

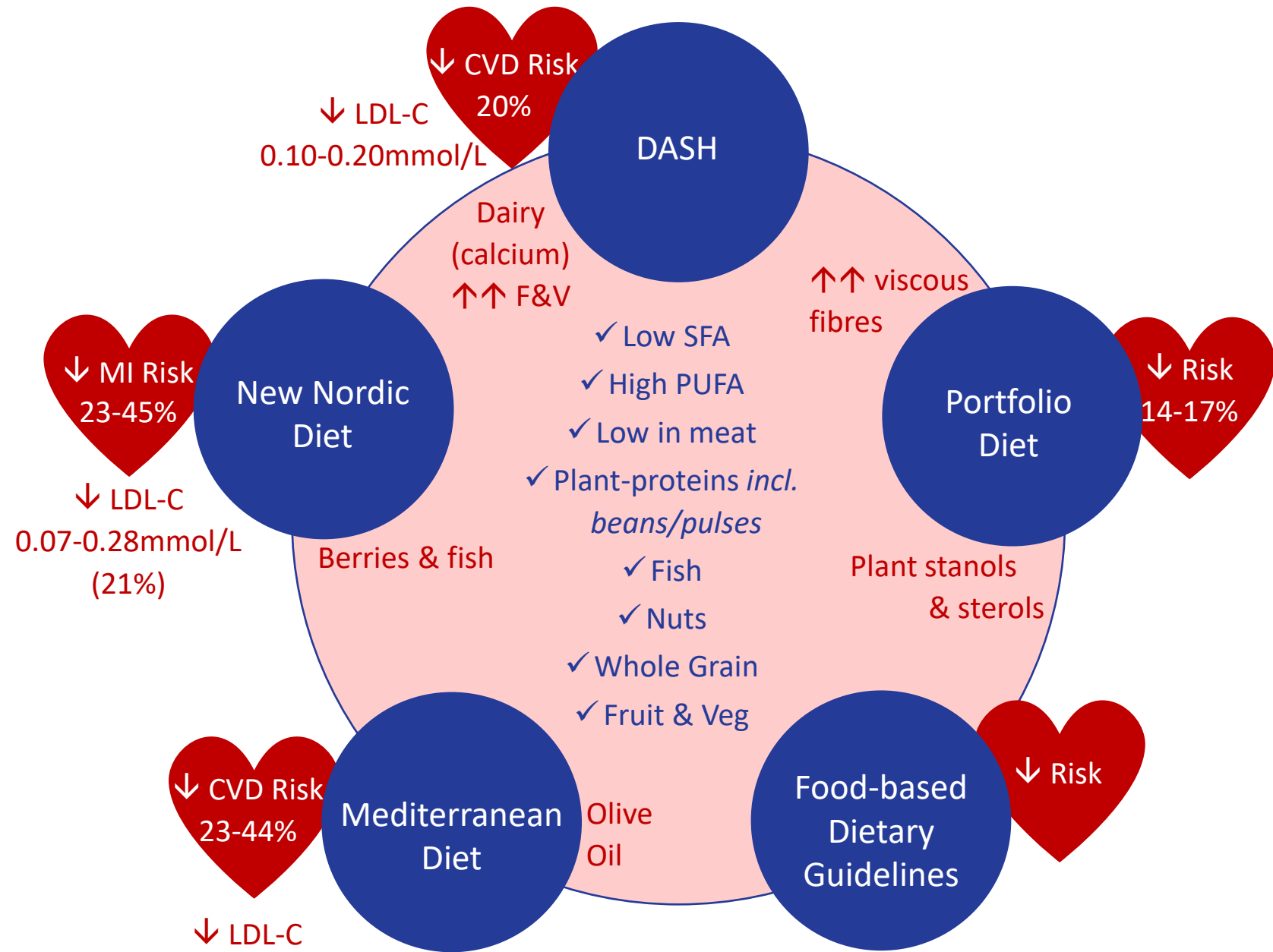


Foods that Lower LDL-C



Adapted from Schoeneck & Iggman. The effects of foods on LDL cholesterol levels: A systematic review of the accumulated evidence from systematic reviews and meta-analyses of randomized controlled trials. *Nutr Metab Cardiovascular Dis* 2021;31(5):1325-38.

We Do Not Eat Foods in Isolation...



UK's Eatwell Guide

- 2015 RCT – national guidelines vs usual
- n=165; 12-weeks
- National guidelines group:
 - Higher fibre, PUFA, whole grains, oily fish
 - Lower SFA, free sugars, salt

TC ↓ 8%; LDL-C ↓ 10%; TG ↓ 9%; SBP ↓ 4.2mmHg

Reidlinger DP, et al. The American Journal of Clinical Nutrition. 2015;101(5):922-930.

**If all UK adhered to the Eatwell Guide..
...we could prevent...**



124,000
cases
CHD



164,000
cases
Strokes



748,000
cases
DM2

Cobiac LJ, et al PLoS One. 2016;11(12):e0167859.



Scheelbeek P, et al. BMJ Open. 2020;10(8):e037554

The Portfolio Diet



Saturated Fat $\leq 7\%$ E
PUFA & MUFA
 $\leq 200\text{mg}$ cholesterol



50g Plant Proteins
Soya (25g protein) &
other beans and pulses



30g Fibre
+20g Viscous Fibres:
Oats & barley; psyllium husk; egg
plants; okra; oranges; berries



2g Plant Sterols
(stanols)



30-40g nuts
(almonds)

Metabolic Studies – 4-6 weeks
Hyperlipidaemic patients
28-35% ↓ LDL-C

6-12 month Free Living
Hyperlipidaemic patients
13-15% ↓ LDL-C

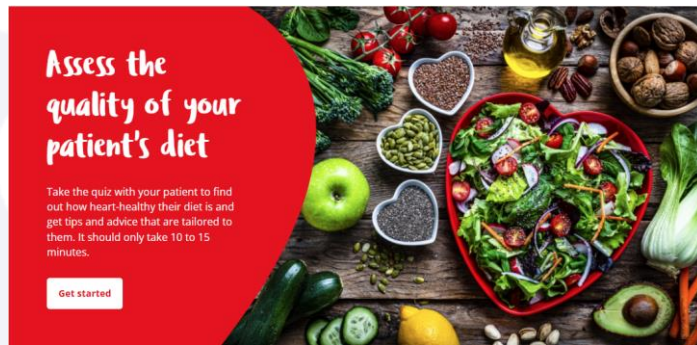
Cumulative effect of each food
Greater adherence = greater LDL ↓

Meta-analysis – 7 RCTs
Hyperlipidaemic patients
17% ↓ LDL-C

+ 11-14% CVD Risk ↓
+ 14-17% CHD Risk ↓

Topline Dietary Recommendations for Cholesterol Management

TOP LINE ADVICE:
**Get a healthy balance of fats
and eat more fibre. Consider
incorporating specific
cholesterol lowering foods**



www.heartuk.org.uk/healthy-living/diet-quiz

- Fat quality: replace saturated fat with unsaturated fat
 - Less meat and processed meat products
 - Switch to low fat vs full cream dairy
 - Switch to vegetable oils and spreads in place of animal, coconut and palm fats
 - Cut down on fast food; sweet & savoury snacks
- More beans and pulses incl. soya
- More fruit and veg
- Switch to whole grains esp. oats and barley
- Nuts including peanuts
- Plant stanol and sterol fortified products

Dietary Advice in Practice...

HEART UK's Quick Dietary Guide

The need...

- National and International Guidelines include the importance of diet and lifestyle advice in their recommendations
- 82% of patients with high cholesterol not receiving dietary advice on diagnosis.
- Diverse range of HCPs providing dietary advice
 - 2/3rds lack confidence
- Time limitations in practice

Step-by-Step Guide: Dietary Advice for Managing Cholesterol

1 ASSESSING the patient's readiness for dietary advice

“Did you know that improving your diet can help improve your cholesterol levels? Would you like to discuss this further?”

No “I understand this and when you find you’re ready to make changes, we’ll be here to help you get started.”

Yes “I understand this and when you find you’re ready to make changes, we’ll be here to help you get started.”

2 ASK about their diet

“I am going to ask you a few questions about your diet to help us focus on which changes you could make.”

Thinking about the last month...	How often?
Q1 Do you eat red meat (beef, lamb, pork, game and venison)?	<input type="checkbox"/> Never <input type="checkbox"/> LESS than 4 times a week
Q2 Do you eat processed meat (e.g. sausages, bacon, ham, salami, roasts, pies and tins)?	<input type="checkbox"/> Never <input type="checkbox"/> LESS than once a week
Q3 Do you eat dairy milk and yogurt?	<input type="checkbox"/> Never <input type="checkbox"/> Yes, USUALLY choose low fat
Q4 Do you eat cheese?	<input type="checkbox"/> Never <input type="checkbox"/> LESS than four times a week
Q5 Do you eat butter, ghee, other animal fat, palm or coconut oil?	<input type="checkbox"/> Never <input type="checkbox"/> Less than once a day
Q6 Do you have fast food, takeaways or ready meals?	<input type="checkbox"/> Never <input type="checkbox"/> LESS than twice a week
Q7 Do you eat savory snacks (e.g. crisps, salted popcorn, nuts, pretzels, biscuits, pies and sausage rolls, beef jerky etc.)?	<input type="checkbox"/> Never <input type="checkbox"/> LESS than twice a week
Q8 Do you eat sweet snacks and puddings (biscuits, cakes, pies, chocolate, sweets, yogurt, chocolate coated nuts or dried fruit, all types of puddings)?	<input type="checkbox"/> Never <input type="checkbox"/> LESS than twice a week
Q9 How many portions (handfuls) of fruit and vegetables do you eat a day?	<input type="checkbox"/> More than 5-a-day <input type="checkbox"/> 5-a-day
Q10 Do you eat foods with added plant sterols or sterols (margarins, spreads, dressings)?	<input type="checkbox"/> Yes <input type="checkbox"/> No

3 ADVISE & COLLABORATE

ARE ALL THE ANSWERS GREEN?

No “If all the answers are green, you’re already making positive dietary changes. For example, you’re eating less red meat. Keep up the good work!”

Yes “If all the answers are green, you’re already making positive dietary changes. For example, you’re eating less red meat. Keep up the good work!”

1) Congratulate the patient on all the GREEN responses.

2) Review with the patient at RED (right hand column) responses and highlight these as a priority to change.

3) Use the information on the reverse side to guide the patient in improving their RED responses. Help them choose specific changes to focus on and ask them to select just 1-2 improvements they would like to make.

“To make progress, it’s best to focus on one or two changes at a time. Which of these changes do you find confidence about starting this week?”

4 AGREE

“Have the options you agree to make?”

• Agree an action plan for the 1-2 changes the patient has agreed to make.

• Emphasize small steps, to make success more achievable.

5 FOLLOW UP

Book a follow-up appointment to review progress and support.

Dietary Changes to Help Manage My Cholesterol

Tick the areas found during your health check that need working on. Then, look at the choices under HOW I CAN IMPROVE to find ways to make positive changes. After looking at your choices, choose just 1-2 areas from IMPROVEMENTS I CAN MAKE to concentrate on over the next four weeks.

HOW I CAN IMPROVE...

Choose foods low in saturated fat, salt and/or sugar and choose for foods that provide heart healthy unsaturated fats. Choose foods that are high in fiber, potassium, magnesium and calcium.

IMPROVEMENTS I CAN MAKE...

Choose foods low in saturated fat, salt and/or sugar and choose for foods that provide heart healthy unsaturated fats. Choose foods that are high in fiber, potassium, magnesium and calcium.

HOW I CAN IMPROVE...

Choose foods low in saturated fat, salt and/or sugar and choose for foods that provide heart healthy unsaturated fats. Choose foods that are high in fiber, potassium, magnesium and calcium.

IMPROVEMENTS I CAN MAKE...

Choose foods low in saturated fat, salt and/or sugar and choose for foods that provide heart healthy unsaturated fats. Choose foods that are high in fiber, potassium, magnesium and calcium.

Aims of the Quick Diet Guide

- Easy to follow and quick to administer.
- Patient led decision making process, where the patient feels involved
- To include motivational interviewing and behaviour change techniques
- Provide HCPs with:
 - ✓ a systematic and logical flow
 - ✓ practical how-2 solutions and examples
 - ✓ clear guidance/direction as to which of the solutions will most benefit the patient

Tools used to create the guide

- HEART UK's diet quiz (based on validated questionnaires)
- Behaviour change techniques (Adapted from the 5 A's of behaviour change)
 - ASSESS if the patient is ready for dietary advice – crucial to determine readiness to change
 - ASK about their diet
 - ADVISE & COLLABORATE (ASSIST)
 - AGREE & CONFIRM

Step-by-Step Guide: Dietary Advice for Managing Cholesterol



1 ASSESSING the patient's readiness for dietary advice

"Did you know that improving your diet can help improve your cholesterol levels? Would you like to discuss this further?"

No
Yes

Continue to next step

"I understand this and when you feel you're ready to make changes here's a diet quiz you can use to help you get started."

HEART UK
Diet Quiz



2 ASK about their diet

"I am going to ask you a few questions about your diet to help us focus on which changes you could make"

Thinking about the last month...	How often?		
Q1 Do you eat red meat (beef, lamb, pork, goat and venison)?	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than 4 times a week	<input type="checkbox"/> 4 times a week or more
Q2 Do you eat processed meat e.g., sausages, bacon, ham, sausage rolls, pies and salami?	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than once a week	<input type="checkbox"/> Once a week or more
Q3 Do you eat dairy milk and yogurts?	<input type="checkbox"/> Never	<input type="checkbox"/> Yes, USUALLY choose low-fat	<input type="checkbox"/> Yes, USUALLY choose full-fat
Q4 Do you eat cheese?	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than four times a week	<input type="checkbox"/> Four times a week or more
Q5 Do you eat butter, ghee, other animal fat, palm or coconut oil?	<input type="checkbox"/> Never	<input type="checkbox"/> Less than once a day	<input type="checkbox"/> Daily
Q6 Do you have fast food, take-aways or ready meals?	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than twice a week	<input type="checkbox"/> Twice a week or more
Q7 Do you eat savoury snacks? (chips, salted/honeyed nuts, pork scratchings, pies and sausage rolls, beef jerky etc.)	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than twice a week	<input type="checkbox"/> Twice a week or more
Q8 Do you eat sweet snacks and puddings? (biscuits, cakes, buns, chocolate, sweets, yogurt/chocolate coated nuts or dried fruit, all types of puddings)	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than twice a week	<input type="checkbox"/> Twice a week or more
Q9 How many portions (handfuls) of fruit and vegetables do you eat a day?	<input type="checkbox"/> More than 5-a-day	<input type="checkbox"/> 5-a-day	<input type="checkbox"/> Less than 5-a-day
Q10 Do you eat foods with added plant stanols or sterols (yogurts, spreads, drinks)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No

3 ADVISE & COLLABORATE

ARE ALL THE ANSWERS GREEN?

No Yes

Scan for more advice and support



A. HEART UK Diet Quiz B. HEART UK Healthy Living

1) Congratulate the patient on all the GREEN responses

"Well done, you're already making positive dietary changes. For example, (give specific green ticked examples). Keep up the good work!"

2) Review with the patient all RED (right hand column) responses and highlight these as a priority to change.

"From your answers, there are a few areas where changes could help improve your cholesterol levels. Would you like to go over these areas and discuss potential improvements to your diet?" (give examples)

3) Use the information on the reverse side to guide the patient in improving their RED responses. Help them choose specific changes to focus on, and ask them to select just 1-2 improvements they would like to tackle.

"To make progress, it's best to focus on one or two changes at a time. Which of these changes do you feel confident about starting this week?"

4 AGREE & CONFIRM

"Given the options we've discussed, what steps will you take to make these changes happen?"

- Agree an action plan and write down the 1-2 changes the patient has agreed to, along with the plan on how to make this happen e.g. specific food swaps they have chosen
- Emphasise small steps, and to gradually build on these, to make sustainable changes

5 FOLLOW-UP PLAN

Book a follow up appointment OR signpost if they want to find out more, or for more improvements.

HEART UK
Diet Quizzes



HEART UK Healthy
Eating Booklet



HEART UK Healthy
Eating in Practice



Dietary Changes to Help Manage My Cholesterol



Tick the areas found during your health chat that need working on.

Then, look at the choices under HOW I CAN IMPROVE to find ways to make positive changes. After looking at your choices, choose just 1-2 areas from IMPROVEMENTS I CAN MAKE to concentrate on over the next four weeks.

IMPROVEMENTS I CAN MAKE... Cut down on foods that are high in saturated fat, salt and/or sugars...	HOW I CAN IMPROVE... Choose foods low in saturated fats, salt and/or sugars and choose for foods that provide heart healthy unsaturated fats* and those with added stanols/sterols**
<input type="checkbox"/> Red meat, processed meat and other fatty meat Learn more about Saturated Fat	<input type="checkbox"/> Red meat less than four times a week. A portion is the size of your palm or a deck of cards <input type="checkbox"/> Avoid processed meat e.g. sausages, tinned meat, salamis etc. <input type="checkbox"/> Choose leaner cuts of meat. E.g., 5% fat mince, remove the skin from poultry (chicken, turkey, duck) and all visible fats (white fat) from meat <input type="checkbox"/> Replace some or all the meat in recipes with beans, lentils, soya mince/chunks, plain Quorn (mince, pieces, fillets), vegetables e.g., veg chilli, chickpea curry, lentil Bolognese <input type="checkbox"/> Eat fish at least twice a week, one of which should be oily (mackerel, sardines, salmon, herring, kippers) <input type="checkbox"/> Go meat-free at least two days a week e.g. veg chilli, chickpea burger, tofu stir fry, baked fish, lentil and mushroom Bolognese
<input type="checkbox"/> Full fat dairy foods: milk, yogurt, cream & plant-based coconut alternatives <input type="checkbox"/> Cheese. Hard and semi-hard cheeses are also very high in salt Learn more about Saturated Fat	<input type="checkbox"/> Always choose low fat or fat-free milk (semi-skimmed, 1% fat or skimmed) and low-fat/diet yogurts (<3g fat/100g) OR choose unsweetened fortified plant-based alternatives except for coconut! <input type="checkbox"/> Limit cream to special occasions - replace with 0% fat crème fraîche, or use low fat yogurt <input type="checkbox"/> Choose low fat cottage or Quark cheese - you can have these daily <input type="checkbox"/> Limit hard and semi-hard cheeses even those labelled 'reduced fat': try and have less than four times a week - keep to 30g (2-thumb-widths) portion.
<input type="checkbox"/> Butter, ghee, other animal fat (e.g., lard) & palm or coconut oil Learn more about Fats & Oils	<input type="checkbox"/> Choose vegetable, nut or seed oils and spreads made with these e.g., olive, rapeseed, sunflower, safflower, peanut. Use in moderation <input type="checkbox"/> Choose cooking methods that do not require added fats e.g., boiling, baking, grilling, poaching, roasting bags
<input type="checkbox"/> Fast food, take-aways or ready meals. Creamy curries, meat & stuffed crusty pizzas, pastry pies, fatty sandwiches, cheese based pastas Explore our Recipes	<input type="checkbox"/> Work towards having fast food and take aways less than twice a week. Gradually cut down, by adding an extra day without them <input type="checkbox"/> For ready meals, choose those that are green for saturated fat, salt and sugar and keep to the recommended serving <input type="checkbox"/> Smaller portions & add vegetables and/or beans <input type="checkbox"/> Tomato based or dry curries • Plain margherita pizza with extra veg on top & add a side salad • Potato topped pies • Sandwiches with salad plus a lean protein e.g., fish, egg, falafel, hummus, chicken or turkey (no skin), skip the mayo • Tomato based pastas <input type="checkbox"/> Sushi is an excellent low fat option
<input type="checkbox"/> Savoury snacks. Crisps, or salted, honeyed or yogurt coated nuts, pork scratchings, pies and sausage rolls, beef jerky, salty savoury snacks, chips Learn more about Snacking	<input type="checkbox"/> A handful of unsweetened/unsalted nuts (25-30g) <input type="checkbox"/> Unsweetened/unsalted popped corn <input type="checkbox"/> Oat crackers with peanut butter <input type="checkbox"/> Veg sticks/oat cakes with low fat hummus or tomato salsa or low fat yogurt & mint <input type="checkbox"/> Baked potato wedges with vegetable or seed oil (not coconut)
<input type="checkbox"/> Sweet snacks. Biscuits, cakes, pastries, sweet chocolate, desserts, puddings Learn more about Snacking	<input type="checkbox"/> Fresh, tinned, frozen or dried fruit with low fat yogurt <input type="checkbox"/> Small handful nuts (25-30g) <input type="checkbox"/> Small bowl wholegrain breakfast cereal with low fat milk <input type="checkbox"/> 2 plain biscuits e.g., rich tea or garibaldi <input type="checkbox"/> Currant/hot cross bun, tea cake, wholemeal fruit scone
<input type="checkbox"/> Not achieving 5-a-day Learn more about Fruit & Veg	<input type="checkbox"/> Include fruit and/or veg with each meal and snack fresh, frozen, canned, dried <input type="checkbox"/> Breakfast: a small banana or handful frozen berries with cereal/porridge <input type="checkbox"/> Lunch: salad in sandwiches/wraps, side salad, bean and veg soups <input type="checkbox"/> Dinner: always add salad and/or at least two cooked veg
<input type="checkbox"/> Not taking foods fortified with plant stanols or sterols*** Learn more about Stanols & Stanols	<input type="checkbox"/> Include daily food with added plant stanols or sterols e.g. spread (3 x 10g servings) OR ONE mini drink WITH a meal OR ONE yogurt for example as a pudding



2

ASK about their diet

"I am going to ask you a few questions about your diet to help us focus on which changes you could make"

Thinking about the last month...		How often?		
Q1	Do you eat red meat (beef, lamb, pork, goat and venison)?	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than 4 times a week	<input type="checkbox"/> 4 times a week or more
	Do you eat processed meat e.g., sausages, bacon, ham, sausage rolls, pies and salami?	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than once a week	<input type="checkbox"/> Once a week or more
Q2	Do you eat dairy milk and yogurts?	<input type="checkbox"/> Never	<input type="checkbox"/> Yes, USUALLY choose low-fat	<input type="checkbox"/> Yes, USUALLY choose full-fat
	Do you eat cheese?	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than four times a week	<input type="checkbox"/> Four times a week or more
Q3	Do you eat butter, ghee, other animal fat, palm or coconut oil?	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than once a day	<input type="checkbox"/> Daily
Q4	Do you have fast food, take-aways or ready meals?	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than twice a week	<input type="checkbox"/> Twice a week or more
Q5	Do you eat savoury snacks? (crisps, salted/honeyed nuts, pork scratchings, pies and sausage rolls, beef jerky etc.)	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than twice a week	<input type="checkbox"/> Twice a week or more
Q6	Do you eat sweet snacks and puddings? (biscuits, cakes, buns, chocolate, sweets, yogurt/chocolate coated nuts or dried fruit, all types of puddings)	<input type="checkbox"/> Never	<input type="checkbox"/> LESS than twice a week	<input type="checkbox"/> Twice a week or more
Q7	How many portions (handfuls) of fruit and vegetables do you eat a day?	<input type="checkbox"/> More than 5-a-day	<input type="checkbox"/> 5-a-day	<input type="checkbox"/> Less than 5-a-day
Q8	Do you eat foods with added plant stanols or sterols (yogurts, spreads, drinks)?	<input type="checkbox"/> Yes		<input type="checkbox"/> No

3

ADVISE & COLLABORATE

ARE ALL THE ANSWERS GREEN?

No Yes

Scan for more advice and support



A. HEART UK Diet Quiz



B. HEART UK Healthy Living

1) Congratulate the patient on all the **GREEN** responses

"Well done, you're already making positive dietary changes. For example, (give specific green ticked examples). Keep up the good work!"

2) Review with the patient all **RED** (right hand column) responses and highlight these as a priority to change.

"From your answers, there are a few areas where changes could help improve your cholesterol levels. Would you like to go over these areas and discuss potential improvements to your diet?" (give examples)

3) Use the information on the reverse side to guide the patient in improving their **RED** responses. Help them choose specific changes to focus on, and ask them to select just 1-2 improvements they would like to tackle.

"To make progress, it's best to focus on one or two changes at a time. Which of these changes do you feel confident about starting this week?"



Dietary Changes to Help Manage My Cholesterol



Tick the areas found during your health chat that need working on.

Then, look at the choices under **HOW I CAN IMPROVE** to find ways to make positive changes. After looking at your choices, choose just 1-2 areas from **IMPROVEMENTS I CAN MAKE** to concentrate on over the next four weeks.

IMPROVEMENTS I CAN MAKE... Cut down on foods that are high in saturated fat, salt and/or sugars...

☐ Red meat, processed meat and other fatty meat
[Learn more about Saturated Fat](#)



☐ Full fat dairy foods: milk, yogurt, cream & plant-based coconut alternatives
☐ Cheese. Hard and semi-hard cheeses are also very high in salt
[Learn more about Saturated Fat](#)



☐ Butter, ghee, other animal fat (e.g., lard) & palm or coconut oil
[Learn more about Fats & Oils](#)



☐ Fast food, take-aways or ready meals.
Creamy curries, meat & stuffed crusty pizzas, pastry pies, fatty sandwiches, cheese based pastas
[Explore our Recipes](#)



☐ Savoury snacks. Crisps, or salted, honeyed or yogurt coated nuts, pork scratchings, pies and sausage rolls, beef jerky, salty savoury snacks, chips
[Learn more about Snacking](#)



☐ Sweet snacks. Biscuits, cakes, pastries, sweet chocolate, desserts, puddings
[Learn more about Snacking](#)



☐ Not achieving 5-a-day
[Learn more about Fruit & Veg](#)



☐ Not taking foods fortified with plant stanols or sterols
[Learn more about Sterols & Stanols](#)



HOW I CAN IMPROVE...

Choose foods low in saturated fats*, salt and/or sugars and choose for foods that provide heart healthy unsaturated fats** and those with added stanols/sterols***

☐ Red meat less than four times a week. A portion is the size of your palm or a deck of cards
☐ Avoid processed meat e.g. sausages, tinned meat, salamis etc.
☐ Choose leaner cuts of meat. E.g. 5% fat mince, remove the skin from poultry (chicken, turkey, duck) and all visible fats (white fat) from meat
☐ Replace some or all the meat in recipes with beans, lentils, soya mince/chunks, plain Quorn (mince, pieces, fillets), vegetables e.g. veg chilli, chickpea curry, lentil Bolognese
☐ Eat fish at least twice a week, one of which should be oily (mackerel, sardines, salmon, herring, kippers)
☐ Go meat-free at least two days a week e.g. veg chilli, chickpea burger, tofu stir fry, baked fish, lentil and mushroom Bolognese

☐ Always choose low fat or fat-free milk (semi-skimmed, 1% fat or skimmed) and low-fat/diet yogurts (<3g fat/100g) OR choose unsweetened fortified plant-based alternatives except for coconut!
☐ Limit cream to special occasions - replace with 0% fat crème fraîche, or use low fat yogurt
☐ Choose low fat cottage or Quark cheese - you can have these daily
☐ Limit hard and semi-hard cheeses even those labelled 'reduced fat': try and have less than four times a week - keep to 30g (2-thumb-widths) portion.

☐ Choose vegetable, nut or seed oils and spreads made with these e.g. olive, rapeseed, sunflower, safflower, peanut. Use in moderation
☐ Choose cooking methods that do not require added fats e.g., boiling, baking, grilling, poaching, roasting bags

☐ Work towards having fast food and take aways less than twice a week. Gradually cut down, by adding an extra day without them
☐ For ready meals, choose those that are green for saturated fat, salt and sugar and keep to the recommended serving
☐ Smaller portions & add vegetables and/or beans
☐ Tomato based or dry curries • Plain margherita pizza with extra veg on top & add a side salad • Potato topped pies • Sandwiches with salad plus a lean protein e.g., fish, egg, falafel, hummus, chicken or turkey (no skin), skip the mayo • Tomato based pastas
☐ Sushi is an excellent low fat option

☐ A handful of unsweetened/unsalted nuts (25-30g)
☐ Unsweetened/unsalted popped corn
☐ Oat crackers with peanut butter
☐ Veg sticks/oat cakes with low fat hummus or tomato salsa or low fat yogurt & mint
☐ Baked potato wedges with vegetable or seed oil (not coconut)

☐ Fresh, tinned, frozen or dried fruit with low fat yogurt
☐ Small handful nuts (25-30g)
☐ Small bowl wholegrain breakfast cereal with low fat milk
☐ 2 plain biscuits e.g., rich tea or garibaldi
☐ Currant/hot cross bun, tea cake, wholemeal fruit scone

☐ Include fruit and/or veg with each meal and snack fresh, frozen, canned, dried
☐ Breakfast: a small banana or handful frozen berries with cereal/porridge
☐ Lunch: salad in sandwiches/wraps, side salad, bean and veg soups
☐ Dinner: always add salad and/or at least two cooked veg

☐ Include daily food with added plant stanols or sterols e.g. spread (3 x 10g servings) OR ONE mini drink WITH a meal OR ONE yogurt for example as a pudding

Dietary Changes to Help Manage My Cholesterol



Tick the areas found during your health chat that need working on.

Then, look at the choices under **HOW I CAN IMPROVE...** to find ways to make positive changes. After looking at your choices, choose just 1-2 areas from **IMPROVEMENTS I CAN MAKE** to concentrate on over the next four weeks.

IMPROVEMENTS I CAN MAKE... Cut down on foods that are high in saturated fat, salt and/or sugars...	HOW I CAN IMPROVE... Choose foods low in saturated fats*, salt and/or sugars and choose for foods that provide heart healthy unsaturated fats** and those with added stanols/sterols***
<input type="checkbox"/> Red meat, processed meat and other fatty meat Learn more about Saturated Fat*	<input type="checkbox"/> Red meat less than four times a week (portion is the size of your palm or a deck of cards) <input type="checkbox"/> Avoid processed meat e.g. sausages, tinned meat, salamis etc. <input type="checkbox"/> Choose leaner cuts of meat. E.g. 5% fat mince, remove the skin from poultry (chicken, turkey, duck) and all visible fats (white fat) from meat. <input type="checkbox"/> Replace some or all the meat in recipes with beans, lentils, soya mince/chunks, plain Quorn (mince, pieces, fillets), vegetables e.g. veg chilli, chickpea curry, lentil Bolognese <input type="checkbox"/> Eat fish at least twice a week, one of which should be oily (mackerel, sardines, salmon, herring, kipper) <input type="checkbox"/> Go meat-free at least two days a week e.g. veg chilli, chickpea burger, tofu stir fry, baked fish, lentil and mushroom Bolognese
<input type="checkbox"/> Full fat dairy foods: milk, yogurt, cream & plant-based coconut alternatives <input type="checkbox"/> Cheese. Hard and semi-hard cheeses are also very high in salt Learn more about Saturated Fat*	<input type="checkbox"/> Always choose low fat or fat-free milk (semi-skimmed, 1% fat or skimmed) and low-fat/diet yogurts (<3g fat/100g) OR choose unsweetened fortified plant-based alternatives except for coconut! <input type="checkbox"/> Limit cream to special occasions - replace with 0% fat crème fraîche, or use low fat yogurt <input type="checkbox"/> Choose low fat cottage or Quark cheese - you can have these daily <input type="checkbox"/> Limit hard and semi-hard cheeses even those labelled 'reduced fat': try and have less than four times a week - keep to 30g (2-thumb-widths) portion.
<input type="checkbox"/> Butter, ghee, other animal fat (e.g., lard) & palm or coconut oil Learn more about Fats & Oils**	<input type="checkbox"/> Choose vegetable, nut or seed oils and spreads made with these e.g., olive, rapeseed, sunflower, safflower, peanut. Use in moderation <input type="checkbox"/> Choose cooking methods that do not require added fats e.g., boiling, baking, grilling, poaching, roasting bags
<input type="checkbox"/> Fast food, take-aways or ready meals. Creamy curries, meat & stuffed crusty pizzas, pastry pies, fatty sandwiches, cheese based pastas Explore our...	<input type="checkbox"/> Work towards having fast food and take aways less than twice a week. Gradually cut down, by adding an extra day without them <input type="checkbox"/> For ready meals, choose those that are green for saturated fat, salt and sugar and keep to the recommended serving <input type="checkbox"/> Smaller portions & add vegetables and/or beans <input type="checkbox"/> Tomato based or dry curries • Plain margherita pizza with extra veg on top & add a side salad • Sandwiches with salad plus a lean protein e.g., fish, egg, falafel, hummus, etc. • Skip the mayo • Tomato based pastas

4

AGREE & CONFIRM



"Given the options we've discussed, what steps will you take to make these changes happen?"

- Agree an action plan and write down the 1-2 changes the patient has agreed to, along with the plan on how to make this happen e.g., specific food swaps they have chosen
- Emphasise small steps, and to gradually build on these, to make sustainable changes

unsalted nuts (25-30g)
popped corn
butter
low fat hummus or tomato salsa or low fat yogurt & mint
vegetable or seed oil (not coconut)

fruit with low fat yogurt
breakfast cereal with low fat milk
a or garibaldi
cake, wholemeal fruit scone

each meal and snack: fresh, frozen, canned, dried or handful frozen berries with cereal/porridge
s/wraps, side salad, bean and veg soups
and/or at least two cooked veg

plant stanols or sterols e.g. spread (3 x 10g servings)
TH a meal OR ONE yogurt for example as a pudding

reverse

My Action Plan

Complete the details for the 1-2 actions you have decided to focus on and keep a record over the next four weeks of how well you are keeping on track!



1) I am going to focus on... (tick your 1-2 chosen goals)	2) MY ACTIONS & SWAPS... Choosing from the above options or add in your own, how will you make this happen?	3) Days Achieved (tick off the days that you achieve your goal to help you stay on track)
		Week M T W T F S S
<input type="checkbox"/> Reducing red and/or processed meat*	e.g., will go meat free twice a week	
<input type="checkbox"/> Choosing low fat dairy foods*	e.g., swap hard cheese for cottage cheese	
<input type="checkbox"/> Switching to healthy fats instead of animal, coconut and palm fats**	e.g., swap butter for an olive oil spread and cook with it	
<input type="checkbox"/> Cutting down on fast foods and ready meals high in saturated fat and salt*	e.g., pizza only once a week and will add veg on top	
<input type="checkbox"/> Eating healthier snacks**	e.g., swap to a handful nuts instead of crisps	
<input type="checkbox"/> Choosing healthier sweet treats and puddings	e.g., swap to just 2 plain biscuits instead of chocolate digestives	
<input type="checkbox"/> Eating at least 5-a-day	e.g., will add a handful of berries to my breakfast	
<input type="checkbox"/> Having foods fortified with plant stanols / sterols every day***	e.g., include a mini drink with my breakfast	

Once you've successfully incorporated your first dietary changes into your daily routine, consider reviewing your options and setting 1-2 new goals. Aim to make 1-2 changes every 4 weeks to continue your progress.

FOR MORE INFORMATION, TIPS AND RECIPES
GO TO heartuk.org.uk/healthy-living



* Reducing consumption of foods high in saturated fat, as part of a balanced diet and healthy lifestyle, contributes to the maintenance of normal blood cholesterol levels. ** Reducing saturated fats with unsaturated fats, as part of a balanced diet, contributes to the maintenance of normal blood cholesterol levels. *** Reducing saturated fats with unsaturated fats, as part of a balanced diet, contributes to the maintenance of normal blood cholesterol levels.



The Guide in Detail



HEART UK's Step-by-Step Guide

This health professional guide has been designed to help you carry out a quick dietary assessment of your patient's diet, and provide tailored dietary advice based on their responses. The accompanying patient sheet allows your patient to record their goals during the consultation and then take it home to track their progress. By following the guide, you'll have everything you need to confidently introduce effective dietary strategies for cholesterol management, regardless of your prior nutrition expertise.

Your Quick, Patient-Centred Process in 5 Simple Steps

This guide offers a quick, step-by-step approach that keeps consultations focused, clear, and effective. With a patient-centred design and behaviour-change strategies incorporated across its five steps, it is ideal for starting conversations and supporting lasting dietary change.

- **Step 1 - Assess Readiness:** Start by gauging how open the patient is to dietary changes.
- **Step 2 - Quick Dietary Assessment:** Use a short, 8-question checklist to identify areas where improvements can be made.
- **Step 3 - Celebrate Strengths & Focus on Improvements:** Recognise dietary positives to build motivation before addressing areas that need attention. The guide offers a variety of solutions to tailor advice to suit each patient's preferences.
- **Step 4 - Set Targeted Goals:** Help the patient choose one or two dietary changes and set specific, achievable goals. The patient take-home sheet allows them to track their progress, enhancing long-term adherence.
- **Step 5 - Maintain Motivation:** Establish a follow-up plan or recommend resources to keep patients on track.

Watch Our Short Video - How to Use the Guide

While the guide is self-explanatory, this short video provides you with a complete walkthrough, offering helpful guidance at each stage to ensure you can implement it seamlessly into your practice.



<https://www.heartuk.org.uk/professional-resources/hcp-step-by-step-diet-guide>



Thank you

HEART UK Nutrition Academy www.heartuk.org.uk/nutrition-academy