



# LOW CARB DIET: EVIDENCE & PRACTICE

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Webinar key messages  
summarised for you.



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# DIETARY MANAGEMENT OF TYPE 2 DIABETES



## HOW DOES TYPE 2 DIABETES WORK?

Insufficient production of insulin and insulin produced not working properly



Elevated blood glucose concentrations (hyperglycaemia)

Damage to blood vessels and nerves



## LONG TERM CONSEQUENCES OF ELEVATED GLUCOSE

- Heart attack
- Stroke
- Kidney disease
- Blindness
- Lower-limb amputation
- Premature death
- Cardiovascular disease



**DID YOU KNOW?**  
CARDIOVASCULAR DISEASE IS THE LEADING CAUSE OF DEATH IN PEOPLE WITH TYPE 2 DIABETES (T2D).

## MANAGEMENT OF TYPE 2 DIABETES

- ✓ REDUCTION OF HBA1C
- ✓ REDUCTION OF BLOOD PRESSURE
- ✓ MANAGEMENT OF BLOOD LIPIDS



We need to manage T2D by focusing on all three clinical markers. If we leave one out, we risk complications persisting.

## CURRENT ADVICE ON CARBOHYDRATE INTAKE

Current UK advice for carb intake for adults with T2D is the same as the general population.

**~50% OF  
CARBS = TOTAL  
ENERGY**

This is based on recommendations made by the Scientific Advisory Committee on Nutrition (SACN) after its 2015 review on Carbohydrates and Health.



# SACN REPORT ON LOWER CARB DIETS IN ADULTS WITH TD2 →



The report was published in May 2021 in response to a request from Public Health England for a systematic assessment of the evidence on lower carb diets for adults with T2D.

Typically, SACN doesn't make recommendations on clinical conditions, so a joint working group comprising of members of SACN, Diabetes UK, British Dietetic Association, Royal College of Physicians and Royal College of General Practitioners was formed



## ? WHAT IS SACN? 💡

The Scientific Advisory Committee on Nutrition (SACN) is comprised of leading experts and provides advice to the UK Government based on its assessment of the scientific evidence available.

## OBJECTIVES OF THE REVIEW:

- ✓ REVIEW THE EVIDENCE ON LOWER CARB DIETS COMPARED TO CURRENT ADVICE FOR T2D
- ✓ CONSIDER IMPACT OF LOWER CARB DIETS ON MARKERS AND CLINICAL OUTCOMES, INCL. ANY ADVERSE EFFECTS
- ✓ MAKE RECOMMENDATIONS BASED ON THE REVIEW OF THE EVIDENCE

## SYSTEMATIC REVIEWS INCLUDED:

- 1 HUNTRESS ET AL. 2018
- 2 KORSMO-HAUGEN ET AL. 2018
- 3 SAINSBURY ET AL. 2018
- 4 VAN ZUUREN ET AL. 2018

Read the papers and other useful resources in our blog!

## LIMITATIONS OF THE EVIDENCE BASE:

- ✗ NO AGREED DEFINITION OF A LOW CARB DIET
- ✗ OVERLAP IN MEAN CARB INTAKES BETWEEN LOWER AND HIGHER CARB GROUPS
- ✗ VARIATIONS IN TYPE/AMOUNT OF MACRONUTRIENT REPLACING CARBS. LACK OF DETAIL ON TYPES OF CARBS CONSUMED
- ✗ LACK OF ETHNIC DIVERSITY WITHIN STUDY SAMPLES
- ✗ LACK OF LONGER TERM DATA (BEYOND 12 MONTHS)



# KEY RECOMMENDATIONS ON LOWER CARB DIETS



## CONCLUSIONS FROM THE REPORT

✓ THE EVIDENCE SUGGESTS BENEFICIAL EFFECTS OF LOWER CARB DIETS ON HBA1C, FASTING PLASMA GLUCOSE AND TRIGLYCERIDES FOR UP TO 6 MONTHS

✓ LOWER CARB DIETS MAY ALLOW REDUCTIONS IN DIABETES MEDICATION

✓ NO DIFFERENCE BETWEEN LOWER AND HIGHER CARB DIETS ON TOTAL OR LDL CHOLESTEROL IN THE SHORT OR LONGER TERM. EVIDENCE ON HDL CHOLESTEROL WAS INCONSISTENT

✓ NO DIFFERENCE IN ADVERSE EVENT BETWEEN LOWER AND HIGHER CARB DIETS IN THE SHORT TERM. LONGER TERM IMPLICATIONS UNKNOWN DUE TO LACK OF DATA

✓ BENEFICIAL EFFECT ONLY KNOWN FOR ADULTS LIVING WITH T2D AND OVERWEIGHT OR OBESITY. LACK OF RESEARCH IN OTHER POPULATIONS.



## SACN RECOMMENDATIONS:

In the report SACN makes recommendations on lower carb diets for adults living with T2D & overweight or obesity.



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A LOWER CARB DIET CAN BE RECOMMENDED AS AN EFFECTIVE SHORT-TERM OPTION (UP TO 6 MONTHS) TO HELP IMPROVE GLYCAEMIC CONTROL AND TRIGLYCERIDES

2

PATIENTS FOLLOWING A LOWER CARB DIET SHOULD STILL FOLLOW CURRENT HEALTHY EATING ADVICE ON WHOLEGRAINS, FRUIT & VEG AND SATURATED FATS

3

WEIGHT MANAGEMENT REMAINS THE PRIMARY GOAL FOR IMPROVING GLYCAEMIC CONTROL AND REDUCING CVD RISK

4

MEDICATIONS MUST BE CAREFULLY MANAGED IF PATIENTS CHANGE TO A LOWER CARB DIET





# PRACTICAL RECOMMENDATIONS TO SUPPORT PATIENTS

## LOWER CARB DIETS ARE AN OPTION, WITH SUPPORT

If patients with T2D are looking to follow a lower carb diet, it's important they receive adequate support from a healthcare professional to ensure they are managing medications appropriately and eating a nutritious diet.

### REDUCE...

- ✗ LIMIT FREE SUGARS FROM THINGS SUCH AS FIZZY DRINKS & JUICES
- ✗ FEWER HIGHLY PROCESSED STARCHY FOODS SUCH AS WHITE BREAD, RICE & FLOUR

### INCLUDE...

- ✓ PRIORITISE LEAFY GREEN VEG & PULSES, STILL EAT WHOLE FRUITS
- ✓ INCLUDE UNSWEETENED MILK & YOGURT
- ✓ SWITCH TO HIGH FIBRE FOODS SUCH AS WHOLEGRAIN / BROWN BREAD, PASTA & RICE

### WHAT ABOUT FAT?

- ✗ REDUCE SATURATED FAT FROM RED & PROCESSED MEAT, GHEE, LARD, BUTTER, BISCUITS ETC
- ✓ INCLUDE MORE HEALTHY FATS FROM FOODS SUCH AS OILY FISH, NUTS, SEEDS & VEGETABLE BASED OILS / SPREADS

MEDICATIONS SHOULD BE MANAGED CAREFULLY BY A HEALTH CARE TEAM TO AVOID HYPOGLYCAEMIA OR KETOACIDOSIS FROM REDUCING CARBOHYDRATES

**DiABETES UK**  
KNOW DIABETES. FIGHT DIABETES.

Check out the [Diabetes UK](#) website for more practical advice on supporting patients following lower carb diets, including meal plans!