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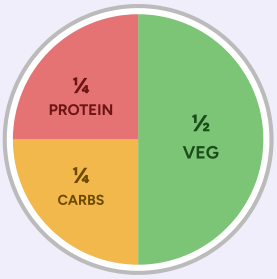
TYPE 2 DIABETES · WITH CHRONIC KIDNEY DISEASE

Diabetes and chronic kidney disease

For type 2 diabetes with reduced kidney function, with or without protein in the urine. Use it with the leaflet for your CKD stage.

🎯 Your targets

What	Target	Why / how
🩸 HbA1c	Individual	Usually 6.5%–8%. Less reliable in advanced CKD (a glucose sensor may help).
🩺 Blood pressure	< 130/80	If well tolerated, systolic around 120 mmHg.
🧂 Salt	< 5 g/day	Always, at every stage.
🍗 Protein	≈ 0.8 g/kg/day	Not too much, nor much less without a dietitian.
🍌 Potassium / 🧀 Phosphorus	By your tests	Restrict only if high (see * in the traffic lights).
🧪 Proteinuria?	If present	A priority: kidney-protecting medicines, little salt, BP on target.



🍽️ The plate method

- **½:** vegetables and salad
- **¼:** fish, lean meat, egg or pulses
- **¼:** potatoes, rice, pasta or bread (wholegrain)
- Whole fruit for dessert; water

🍬 Hypoglycaemia (sugar < 70 mg/dL)

More likely with insulin or sulfonylureas (gliclazide, glimepiride). Signs: shaking, sweating, hunger, palpitations, confusion.

- Take **15 g of sugar**: 3 sugar sachets in water, or half a glass of juice/regular fizzy drink
- Check again after **15 min**; repeat if still < 70
- Then have a small meal or snack

🚦 Food traffic lights

⚪ Choose

- Vegetables: half the plate; vegetable soup
- Pulses: beans, chickpeas, lentils*
- Fish (incl. sardines, mackerel), skinless poultry, eggs
- Wholegrain bread, oats, rice or pasta (controlled portion)
- Whole fruit: 1 piece at a time (orange, apple, pear)*
- Olive oil; unsalted nuts (small handful)*
- Water, unsweetened tea and coffee

⚪ In moderation

- Potatoes, rice, pasta, bread: ¼ of the plate
- Very sweet fruit (grapes, figs, persimmon): small portions
- Unsweetened milk and plain yoghurt; mild cheese
- Red meat: no more than 350–500 g a week
- Wine: a little and only with meals (risk of hypoglycaemia)
- Sweeteners: in moderation, as a step towards less sweetness

⚪ Avoid / rarely

- Fizzy drinks, juices (even 100% fruit), nectars, iced tea
- Cakes, custard tarts (pastel de nata), Algarve sweets (Dom Rodrigo, morgado)
- Sugar, honey, jam, sugary breakfast cereals
- Dried figs and candied fruit in large amounts
- Cured meats (enchidos), processed meats, fried food and fast food
- Liqueurs, spirits, medronho

** Foods with potassium: if your potassium is high, limit them as your doctor advises.*

📞 Contact your doctor if...

- Frequent or severe hypos
- Repeated glucose > 300 mg/dL, great thirst
- Nausea, tummy pain, fast breathing*
- Vomiting or diarrhoea that stop you drinking
- A wound, blister or red area on a foot
- Swollen legs

** Especially if you take a "-gliflozin": this may be ketoacidosis — go to A&E.*

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🔄 Easy swaps

INSTEAD OF…	CHOOSE…
✗ Orange juice at breakfast	✓ A whole orange
✗ White bread with jam	✓ Mixed-grain bread with fresh cheese or egg
✗ Rice, potatoes and pasta on one plate	✓ Just one starchy food (¼ plate) and more vegetables
✗ Custard tart or cake as a snack	✓ Plain yoghurt + fruit or unsalted nuts

💊 Medicines and products: take care!

- 🩸 **Metformin**: with meals. With eGFR 30–44 mL/min the dose is reduced; with eGFR < 30 mL/min it should not be used.
- 💉 **Semaglutide, dulaglutide, tirzepatide…**: may cause nausea — eat slowly and little at a time, drink water. Tell staff you take them before anaesthesia or endoscopy.
- 🛡️ **"-prils", "-sartans", finerenone**: protect the kidneys and lower proteinuria; may raise potassium — blood test 2–4 weeks after starting or increasing the dose. Don't stop without advice.
- 🌿 **"Diabetes" supplements** (cinnamon, teas, vitamins): no proven benefit and they do not replace your medicines.
- 🧂 **"Light" salt** (potassium), **phosphate or magnesium laxatives**, **herbal remedies**: avoid.
- 🤒 **Sick days** (vomiting, diarrhoea, fever): drink fluids, check your glucose more often and contact your doctor — you may need to pause metformin, "-gliflozins", "-prils", "-sartans" and diuretics.
- 💧 **"-gliflozins"** (dapagliflozin, empagliflozin…): protect kidneys and heart. Drink water, keep the genital area clean; pause on sick days and 2–3 days before planned surgery.
- ⚠️ **Insulin and sulfonylureas**: risk of hypoglycaemia; alcohol increases it. Always carry sugar with you.
- 🚫 **Anti-inflammatories (NSAIDs)** — ibuprofen, diclofenac…: affect kidneys and blood pressure. Only on medical advice.
- 💊 **Steroids** (tablets or injections) raise blood sugar: check your glucose more often.
- 🩻 **Contrast dye** (CT, MRI): say you have kidney disease and diabetes; metformin may need to be paused.

🏃 Lifestyle

🚶 Exercise
≥ 150 min a week + strength 2–3 times a week; get up every 30 min.

⚖️ Weight
If you are overweight, losing ≥ 5% already improves sugar, blood pressure and cholesterol.

🚭 Smoking
Quitting protects your heart, kidneys, eyes and feet.

🍷 Alcohol
Little or none; always with food. It can cause hypoglycaemia hours later.

👣 Feet
Check them every day; comfortable shoes; foot check at least once a year.

🧪 Kidneys
eGFR and albuminuria 2 or more times a year, as advised.

🤒 Sick days with diabetes and kidney disease

- If you have vomiting, diarrhoea or fever and cannot eat or drink normally: **check your blood sugar every 2–4 h** and drink little and often.
- Your doctor may tell you to pause metformin, "-gliflozins", "-prils", "-sartans" and diuretics for a few days; restart them 24–48 h after you are eating and drinking normally again.
- **Do not stop insulin** on your own: the dose may need adjusting — talk to your doctor.
- If you are not better in 24–48 h, pass very little urine or have very high or low sugars: contact your doctor.

References (sources of these recommendations):

1. American Diabetes Association. Standards of Care in Diabetes—2026 (sections 5, 6, 10, 11). Diabetes Care. 2026;49(Suppl 1).
2. Davies MJ et al. Management of hyperglycaemia in type 2 diabetes, 2022. Consensus report ADA/EASD. Diabetologia. 2022;65:1925–1966.
3. KDIGO 2022 Clinical Practice Guideline for Diabetes Management in CKD. Kidney Int. 2022;102(5S):S1–S127.
4. KDIGO 2024 Clinical Practice Guideline for the Evaluation and Management of CKD. Kidney Int. 2024;105(4S):S117–S314.
5. KDIGO 2021 Clinical Practice Guideline for the Management of Blood Pressure in CKD. Kidney Int. 2021;99(3S):S1–S87.
6. 2023 ESC Guidelines for the management of cardiovascular disease in patients with diabetes. Eur Heart J. 2023;44:4043–4140.
7. Direção-Geral da Saúde (Portuguese Directorate-General of Health) – PNPAS: Food Wheel and salt reduction recommendations (≤ 5 g/day, WHO).
8. KDIGO 2012 Clinical Practice Guideline for the Evaluation and Management of CKD (ch. 4: medication safety, phosphate-containing bowel preparations). Kidney Int Suppl. 2013;3:1–150.

This leaflet is for information only and does not replace individual advice from your doctor or dietitian. Targets should be personalised. Do not change or stop any medicine without talking to your doctor.