

Onions and diabetes management

Following a healthy diet and lifestyle is a critical factor in managing diabetes. If you have been diagnosed with diabetes, managing your blood sugar levels is important to stay healthy and prevent diabetes complications.



What is diabetes?

- Blood glucose levels are often higher than normal in people with diabetes because the body doesn't produce insulin (type 1 diabetes) or cannot manage insulin properly (type 2 diabetes)
- When people with diabetes eat foods containing sugars or starches, these can't be effectively converted into energy, which causes blood glucose levels to rise to harmful levels
- Diabetes is a serious and complex disease that can affect the entire body. While there is currently no cure for diabetes, you can live well by following a healthy lifestyle and managing your diabetes effectively

There are three main focus areas for effective diabetes management:

1.



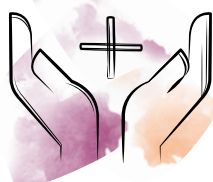
Healthy eating

2.



Regular exercise

3.



Blood glucose monitoring and medical treatment

The role of healthy eating

People living with diabetes should aim to eat at least five serves of vegetables every day, as recommended in The Australian Dietary Guidelines. Adding half an onion (approximately 75g) to your daily meals is a great way to help achieve this target:

- Half an onion provides around 100kJ, making it a great vegetable to help manage your weight, an important aspect of effective diabetes management
- When included as part of a balanced diet, onions can contribute to heart health by helping lower blood cholesterol levels and blood pressure, two important factors for effective diabetes management

Quinoa Pilaf Stuffed
White Onions



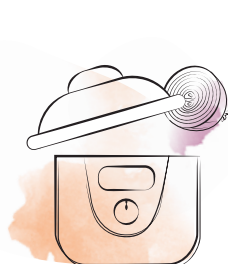
Onion nutrients for effective diabetes management

Phytonutrient antioxidants

Onions are an important source of phytonutrient antioxidants (such as flavonoids) that can help control blood glucose levels.

Research suggests onion flavonoids may increase insulin secretion which, in turn, increases the amount of glucose body cells take up, thereby helping control blood glucose levels.² Recent research in animal studies found onion juice extract (from fresh onion) caused a significant decrease in blood glucose levels.³

Several studies have highlighted the beneficial effect of quercetin in controlling diabetes – a key flavonoid found in red onions.^{4,5}



Add half an unpeeled onion when slow cooking a meal, then remove the onion before eating. Your meal will be supercharged with phytonutrient onion goodness



Phytonutrient goodness is found in the outer layers, so don't peel too much away



When peeling onions, freeze the peels to have on hand for your next homemade stock. You'll reap more phytonutrient benefits from the peel and reduce food waste

Fibre

Research has shown the gut microbiome is associated with the development of type 2 diabetes.⁶ Eating enough fibre is important for a healthy gut:

- Onions are rich in soluble fibre that supports gut health - half an onion contains 1.6g of fibre
- Onions contain fructans (1.4g in a 75g serve) - a prebiotic fibre that resists digestion and provides food for the good bugs in the gut
- Fructans are an ideal food for the gut microbiome that helps promote the growth of healthy bacteria such as bifidobacteria

Top 6 lifestyle tips

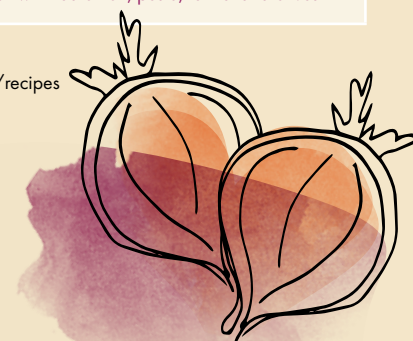
1. Eat **regular meals and healthy snacks**. Include foods high in fibre such as wholegrain breads and cereals, beans, lentils, vegetables and fruits
2. Keep within a **healthy weight range** by matching kilojoule input and output each day. A healthy weight can reduce the risk of developing diabetes complications
3. **Regular exercise** has many benefits – it helps insulin work more effectively, lowers blood pressure, reduces stress and helps maintain a healthy weight
4. **Get enough sleep** each night, to help keep blood glucose levels stable and prevent fatigue
5. **Avoid smoking**. People who smoke tend to have less control over their blood glucose levels
6. Have **regular check-ups** with your healthcare professional to manage blood glucose levels and overall health

A daily diabetes eating plan

Packed with onion goodness

| | |
|-----------|----------------------------------------------------------------------------|
| Breakfast | Veggie-packed onion shakshuka with wholegrain toast |
| Snack 1 | A piece of fruit and brown onion and carrot fritter |
| Lunch | Citrus salad with quick red onion pickles , mint and pistachio nuts |
| Snack 2 | A wedge of frittata and small tub of natural yoghurt |
| Dinner | Steamed fish with red onion , pesto, fennel and olives |

Find our delicious recipes at:
www.australianonions.com.au/recipes



References:

1. <https://www.diabetesaustralia.com.au/about-diabetes/diabetes-in-australia/> 2. Bordoloi, Premila L. & Tiwari, Mansi & Dave, Preeti. [2020]. Anti-diabetic potential of onion: a review. https://www.researchgate.net/publication/342643304_Anti-diabetic_potential_of_onion_a_review/citation/download 3. Airoodion, A.I. et al. Hypolipidaemic and antidiabetic potency of Allium cepa (onions) bulb in alloxan-induced diabetic rats. *Acta Scientia Nutritional Health*, 2020; 4, 73–80. <https://www.actascientific.com/ASNH/pdf/ASNH-04-0648.pdf> 4. Knekt, P. et al. [2002]. Flavonoid intake and risk of chronic diseases. *American Journal of Clinical Nutrition*, 76(3):560–568. <https://pubmed.ncbi.nlm.nih.gov/12198000/> 5. Kabori, M et al. [2009]. Dietary quercetin alleviates diabetic symptoms and reduces streptozotocin-induced disturbance of hepatic gene expression in mice. *Molecular Nutrition and Food Research*, 53(7):859–868. <https://pubmed.ncbi.nlm.nih.gov/19496084/> 6. Aasmets O, Lüll K, Lang JM, Pan C, Kuusisto J, Fischer K, Lookso M, Lüss AJ, Örg E. Machine Learning Reveals Time-Varying Microbial Predictors with Complex Effects on Glucose Regulation. *mSystems*. 2021 Feb 16;6(1):e01191-20. doi: 10.1128/mSystems.01191-20. PMID: 33594006; PMCID: PMC8573957. <https://pubmed.ncbi.nlm.nih.gov/33594006/>

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