

# Health Professional Information Sheet (Pens)

## What is OzDAFNE?

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DAFNE stands for **D**ose **A**djustment **F**or **N**ormal **E**ating. OzDAFNE is the Australian version.

**OzDAFNE Pens** is a five-day evidence-based structured group education program for adults living with type 1 diabetes using multiple daily injections of insulin (MDI). It equips participants with strategies to self-manage their insulin doses based on the amount of carbohydrate they eat and other factors such as physical activity and illness.

During the OzDAFNE Pens program, participants will learn how to:

- Adjust long-acting insulin to approximate basal insulin requirements.
- Count carbohydrates.
- Calculate quick-acting insulin doses according to carbohydrate intake and their insulin to carbohydrate ratio.
- Correct 'out of target' glucose levels and evaluate their glucose level patterns.
- Adjust quick-acting & long-acting insulin to attain glucose levels in the target range.

The standard OzDAFNE glucose level targets are as follows:

- Before meals: 4.0 to 8.0 mmol/L
- Before bed: 6.0 to 8.0 mmol/L
- At 3 am: 5.0 mmol/L or more
- Before driving: 5.0 mmol/L or more
- Before physical activity: 7.0 to 10.0 mmol/L

**Participants who have impaired awareness of hypoglycaemia or retinopathy may be advised to use the upper end of these targets initially.**

Participants are required to take quick-acting insulin each time they eat carbohydrate, and to have appropriate long-acting insulin doses to meet basal requirements. Research has shown that taking long-acting insulin twice a day improves HbA<sub>1c</sub> and provides flexibility for managing physical activity. Toujeo is not recommended for people attending OzDAFNE programs as its long duration makes it difficult to adjust, however it is not absolutely contraindicated. The program is not suitable for people using mixed insulins or Ryzodeg.

Biochemical, anthropometric, and quality of life data is collected before the OzDAFNE program and 12 months post-program to measure the program's effectiveness. The following benefits of the OzDAFNE Pens program have been demonstrated:

- Improved HbA<sub>1c</sub>
- Reduced severe hypoglycaemia
- Reduced hospital admissions from DKA
- No weight gain or increase in blood lipids
- Increased dietary freedom
- Reduced diabetes distress and improved quality of life

## The OzDAFNE approach – don't we already do this?

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OzDAFNE Pens is a comprehensive and structured group education program facilitated by accredited OzDAFNE diabetes nurse educators and accredited practicing dietitians. It teaches carbohydrate counting in 10 g portions and introduces quick-acting insulin to carbohydrate ratios. Glucose level pattern recognition allows for the adjustment of both quick-acting and long-acting insulin using a systematic approach. Group learning and peer support assists the participants to develop skills and learn to problem solve in a hands-on, supportive environment.

DAFNE has a strong evidence base having been trialled and evaluated in Europe, the UK, and Australasia. It has consistently demonstrated improved outcomes for thousands of participants. Strict quality assurance and training standards ensures that the OzDAFNE Facilitators provide a consistent program to all participants and allows for the comparison of data across all centres.

Participants tell us that OzDAFNE is “life changing” – providing them with the confidence, knowledge, and skills to self-manage whilst reducing their stress and anxiety.

## Why are OzDAFNE programs so long?

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The OzDAFNE Pens program is currently available in three formats: as an in-person “1 week” intensive; an in-person “5x1” format where participants attend 1 day per week over 5 weeks; and the OzDAFNE@home format which is delivered remotely across a period of 7 weeks, incorporating weekly online group meetings, online learning modules and workbook activities which are completed in the participant's own time.

The length of the OzDAFNE program (in all formats) allows time for participants to assess and make changes to their insulin doses and ratios, and to discuss their progress with ongoing support from experienced health professionals over the course of the program. It also allows for a truly comprehensive curriculum to be delivered. Evaluations and audit data of our programs show excellent outcomes, and participant feedback is overwhelmingly positive.

## Why doesn't OzDAFNE Pens use two-hour post-prandial glucose checking?

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The peak action of quick acting insulin can vary depending on the dose taken and the injection site. Two-hour post-prandial glucose levels may also vary depending on the digestive rate of the food eaten and the carbohydrate load. For these reasons, glucose levels may still be elevated two hours post-prandially.

Checking glucose levels two hours post-prandially could lead to hypoglycaemia, due to:

- Insulin stacking if participants correct above target glucose levels at this time, and/or
- An inappropriate increase of their insulin-to-carbohydrate ratio in an attempt to address a pattern of above target post-prandial glucose levels at that mealtime.

## What about people using insulin pumps? Can they do OzDAFNE?

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OzDAFNE Pens is for people using multiple daily injections. OzDAFNE Pump is not currently being delivered. We are seeking funding to enable a review of the curriculum to ensure it reflects recent advancements in pump technology.

However, OzDAFNE Pens acts as an ideal program for people who are considering going onto a pump. OzDAFNE Pens teaches participants skills that are essential when using a pump such as carbohydrate counting and managing challenging situations like physical activity, illness and alcohol. These skills can assist with successful pump initiation.

Visit [www.dafne.org.au](http://www.dafne.org.au) to read more about the OzDAFNE program.