

Women's Health & Diabetes

Being a woman may come with its own challenges that can be impacted once diabetes is diagnosed. Let's look at some of these potential impacts and how to manage diabetes as a woman.

EFFECT OF HORMONES ON GLUCOSE LEVELS

You may notice that your menstrual cycle causes fluctuations to your glucose level over the month. Let's explore the effect hormones can have on your glucose levels.

The Menstrual cycle is regulated by the hormones oestrogen and progesterone, that are produced in varying amounts over your cycle. With diabetes, these hormones will affect your glucose levels causing fluctuations during the cycle. Your glucose level may rise in the few days prior to the start of your period when the hormones oestrogen and progesterone are at their highest. Once your period begins, your hormones are at their lowest and you may experience lower glucose levels as a result. This is because oestrogen directly affects your cells' sensitivity to insulin causing temporary insulin resistance. More

hormones means you need more insulin to keep your glucose levels in your target range.

The effect hormones have on glucose levels is different for each woman. Recording your glucose levels and when your period is due will help you identify if your cycle affects your glucose levels. This will help you find your own pattern. If you are on insulin you may need to adjust your dose prior to and once your period has commenced to avoid high or low glucose levels. This effect may be the same even if you are taking an oral contraceptive pill. If you are not sure discuss this with your doctor or diabetes educator.

Premenstrual Syndrome (PMS). Most regularly ovulating women experience some physical and





emotional symptoms such as changes to your mood, during the premenstrual phase. This may also impact on how you manage your diabetes. Some women experience food cravings or stop your usual physical activity, may lead to higher glucose levels. Some suggestions to help reduce the effect of PMS on your glucose levels include:

- reducing your intake of alcohol, caffeine and chocolate
- relaxation therapies such as meditation
- consider reducing salt intake and follow recommended serves of fresh fruit and vegetables each day and exercise
- discuss other treatment options with your doctor

Menopause will affect all women at some point at the end of reproductive years. The most common symptoms of menopause are flushing, mood swings, aches and pains in joints. About 1 in 4 of women will have severe flushes that will require some medical intervention. They should seek advice from a Menopause Specialist (see resources at end). For a woman with type 1 diabetes this may be earlier than average.

For a woman with type 2 diabetes, menopause may occur later. As hormone levels fluctuate, changes

in glucose levels may occur. Reduced oestrogen can lead to insulin resistance and an increased risk of developing type 2 diabetes among women not currently diagnosed with diabetes.

If you live with type 1 diabetes, more frequent hypoglycaemia may be the first sign that your hormone levels are decreasing. Insulin dosage adjustments will be needed once your menstrual cycle has ceased for 12 or more months. The onset of menopause may lead to symptoms that may be confused with high or low glucose levels, such as light-headedness, excess sweating and lack of concentration.

Pregnancy Planning is very important as there are risks associated with Type 1 diabetes and pregnancy. The contraceptive options for women with diabetes are the same as for any woman. The most suitable one will depend on a number of factors, especially individual preferences. There may be contraindications for women to use the contraceptive pill if they have peripheral vascular disease or other diabetes-related complications. The effectiveness of various birth control options is the same for women with or without diabetes. If necessary, you should discuss contraception and pregnancy planning with your doctor or diabetes educator.

DIABETES & COMMON RELATED PROBLEMS

Infections: Persistent glucose levels above target may increase the risk of vaginal and urinary tract infections. This type of infection may be the first sign of undiagnosed type 2 diabetes. Treatment will manage the infection; however, if glucose levels remain high, the infection may reoccur or be difficult to resolve.

Vaginal dryness: it is very common, especially if the woman has had diabetes for a long time. It can also be the result other causes such as menopause, some oral contraceptives and stress. This can lead to a reduced enjoyment of or painful sexual intercourse. Lubricants or oils are effective in decreasing dryness and increasing sensitivity. Use a soap-free wash or wipe for vaginal and anal skin; this will also help with dryness. Talk to your pharmacist for the best product to use for your symptoms. Hormone replacement therapy can be useful during and after menopause as well as topical hormonal creams or an oestrogen ring. Most types of hormone replacement therapy do not affect glucose levels. If you have a problem with vaginal dryness, you should discuss this with your doctor or diabetes educator.

Sexual dysfunction: is a more commonly noticed problem for males with diabetes; however, sexual dysfunction can also affect women with a history of glucose levels persistently outside their target range.

If this is a concern for you, start by finding the cause. Fluctuating glucose levels or the presence of diabetes-related health problems may leave you fatigued, without energy and less interest in sex. Keeping your glucose levels in your target range may improve your mood and libido.

If you are diagnosed with neuropathy, a diabetes-related complication, this can lead to vaginal dryness making sexual intercourse painful and difficult.

There are many preparations on the market that can be used to increase lubrication. For severe dryness, vaginal suppositories and relaxation exercises may assist.

Another consideration is fear of hypoglycaemia during intercourse, as this may become a deterrent. Checking your glucose level, keeping glucose close at hand or having some extra carbohydrate before or after intercourse can reduce your risk of hypoglycaemia. Importantly, it may help ease some of your fears.

Polycystic ovarian syndrome (PCOS): is a complex hormonal condition. It can be diagnosed in women living with diabetes and those who do not have diabetes (but PCOS does increase the risk of a later type 2 diabetes diagnosis). Women with PCOS commonly have high levels of insulin and male hormones known as 'androgens'. The cause is unclear, but insulin resistance is thought to be the key problem. In some women, PCOS runs in the family but, for others, the condition only occurs when they are an unhealthy weight.

PCOS is relatively common but difficult to diagnose. Symptoms include irregular or an absent menstrual cycle, excessive facial or body hair (or both), acne, scalp hair loss, difficulty in becoming pregnant, mood changes, unhealthy weight gain and sleep apnoea.

Treatment starts with healthy eating, introducing regular physical activity, the oral contraceptive pill, medication to block hormones such as testosterone, infertility medications, metformin (a diabetes medication for insulin resistance), support and counselling.

WHAT CAN YOU DO TO MINIMISE THE EFFECT?

- ➊ **Monitoring your glucose level:** may help determine your pattern over the month and can be used to pre-plan for times where your glucose level may go higher or lower due to your hormones. You may even decide to use a period tracker app.
- ➋ **Pre-menstrual syndrome (PMS):** consider that this may be a reason for glucose level fluctuations. PMS may cause cravings and irritability making you eat more at different times



in the month. Keep a diary of your food intake over the month to identify times of overeating and compare to your glucose levels. Remember caffeine and alcohol can affect your mood.

- ➌ **Changes to oral contraceptive:** discuss the most suitable form of oral contraceptive to take. Monophasic oral contraceptive containing fixed amounts of hormones appears to be better for managing glucose levels than the older triphasic or progesterone-only ones. If you have any side-effects, discuss them with your doctor and consider alternative options.
- ➍ **Other tips** include reducing your intake of alcohol, caffeine and chocolate as they may affect your mood and increase your glucose levels. Eating at regular times and maintaining a regular physical activity pattern will improve control and reduce swings in your glucose level.

WHO CAN HELP?

- Your General Practitioner or Practice Nurse
- Health professionals such as a psychologist, dietitian, exercise physiologist, or pharmacist
- Endocrinologist, diabetes nurse practitioner or diabetes educator
- Women's Health Organisations such as Family Planning
- Websites specific to women's health issues such as www.menopause.org.au (to access a list of menopause specialists) or Australian Women's Health Network <https://awhn.org.au/>
- NDSS fact sheet Polycystic Ovarian Syndrome

Further Information

If you have any questions, please call the NDSS Helpline on **1800 637 700** to speak to a dietitian or diabetes educator.

