



annual review for  
Young people  
with diabetes

streetwise

This information is intended for those with Type 1 Diabetes

What Are We  
Looking For?

## THE DIABETES HEALTH CHECK

ONCE A YEAR YOU NEED TO HAVE AN EXTRA HEALTH SCREENING TO PICK UP ANY SIGNS OF POSSIBLE COMPLICATIONS OR CONDITIONS THAT CAN HAPPEN WHEN YOU HAVE DIABETES. THIS HEALTH SCREENING IS KNOWN AS YOUR “ANNUAL REVIEW.” HAVING THESE CHECKS EACH YEAR MEANS THAT ANY COMPLICATIONS OR CONDITIONS CAN BE PICKED UP EARLY AND DEALT WITH.



## Related Conditions

**Type 1 diabetes** is an autoimmune condition. Coeliac disease, hypothyroidism and hyperthyroidism are also autoimmune conditions, which are associated with type 1 diabetes, occurring more commonly in people with diabetes. The signs for these conditions can be easily missed, so you should have blood tests to check for them.



### What is Coeliac Disease?

- Coeliac disease is an intolerance to gluten which is a protein found in foods containing wheat, oats, rye, and barley.
- You may notice stomach pain, bloating, constipation, diarrhoea, weight loss, and low blood glucose levels without a reason; at clinic your team may notice you are not growing as well as you should, or you may not show any signs at all.
- The treatment for coeliac disease involves avoiding foods which contain gluten and your diabetes team will give you advice and support with this.

If your diabetes team suspects coeliac disease they will need to do some investigations to confirm



### What is Hypothyroidism & Hyperthyroidism?

- The thyroid gland is in the neck. It makes the hormone thyroxine, which regulates the body's metabolism.
- **Hypothyroidism** is when the body doesn't make enough thyroxine; this can make people feel tired, cold, constipated, and have low blood glucose levels without a reason. Sometimes there are none of these symptoms.

The treatment for hypothyroidism is straightforward – taking a tablet of thyroxine each day.

- **Hyperthyroidism** is when the thyroid gland makes too much thyroxine; this can make people feel nervous or anxious, and can cause hand tremors, rapid heartbeat, excessive sweating, weight loss and sleep disturbances.

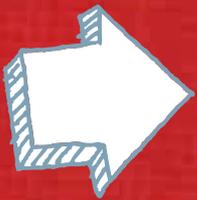
Hyperthyroidism is generally treated initially with anti-thyroid medications that interfere with the production of thyroid hormones.

# Complications



## Kidney Health

- Blood vessel damage can lead to the kidneys leaking tiny amounts of protein (microalbuminuria) into the urine. If this continues it can cause raised blood pressure and permanent damage to the kidneys.
- You will need to have a sample of your urine checked every year to check for microalbuminuria.
- Your diabetes specialist or local healthcare team will check your blood pressure and if required you may be asked to take tablets to protect your kidneys.



## Eye Health

- The retina is the light sensitive layer of the back of the eye where images are formed. Unstable blood glucose control can cause damage to the small blood vessels in the retina.
- You don't have to have problems with your vision for this to happen.
- Retinal screening should be part of your health review once you have had diabetes for 2 years if you had already reached puberty at the time of your diagnosis; or after 5 years if you were not yet in puberty at diagnosis. This involves having a good look at the back of your eyes. To do this you will need to have drops in your eyes and a photograph taken. If these eye examinations show no abnormalities you will likely only need to have these done every 18 months to 2 years. If abnormalities are detected, the checks are undertaken more often.
- If retinal screening finds any early problems with your eyes, treatments are available.
- Your diabetes team will be able to tell you more about where you can go locally and what to expect.



## BLOOD VESSEL HEALTH

HAVING STABLE BLOOD GLUCOSE LEVELS WITHIN THE TARGET RANGE HELPS KEEP THE BODY HEALTHY AND IS A VERY IMPORTANT PART OF REDUCING THE RISK OF DAMAGE TO BLOOD VESSELS. RESEARCH SHOWS THAT WHEN BLOOD GLUCOSE LEVELS GO UP AND DOWN FREQUENTLY OR ARE RAISED MUCH OF THE TIME THIS CAN LEAD TO DAMAGE TO THE BLOOD VESSELS IN THE KIDNEYS, EYES, HEART, AND NERVES.



RESEARCH HAS SHOWN  
THAT COMPLICATIONS ARE  
LESS LIKELY IF:

- You keep your blood glucose level s stable.
- You keep your blood glucose levels within your target range.
- Your HbA1c is under 58 mmol/L (under 7.5%).
- You do not smoke.

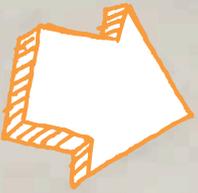
NATIONALLY  
RECOMMENDED  
BLOOD GLUCOSE  
TARGETS ARE:

- 4-8 mmol/L before meals.
- 4-10 mmol/L after meals.
- 5 -9 mmol/L overnight.

STAYING HEALTHY  
AND PREVENTING  
COMPLICATIONS

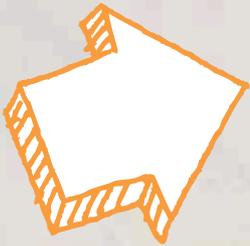
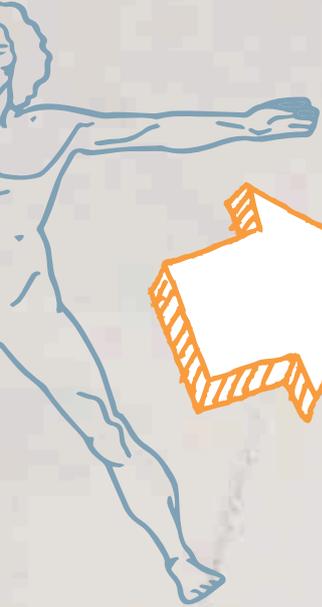
- It is important to have all these health checks when your diabetes team recommends them, as many problems can be picked up early and treated.





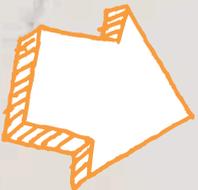
## Foot Health

- Foot screening is a recommended part of your annual review. If you are concerned about any aspects of your foot health, no matter how minor, ask your diabetes specialist or local healthcare team for advice.
- Look after your feet; buy well-fitting shoes. You should keep your nails healthy by cutting them to the shape of the end of your toes. Don't cut them straight across, curved down the sides, or too short. Speak to your podiatrist if you have any concerns about your feet.



## Blood Pressure

- Your blood pressure will be checked at your clinic appointment.
- An increased blood pressure can be a sign of kidney problems (see above) or a sign of poor heart health.
- If your blood pressure is raised on one occasion it does not indicate damage. This will need to be checked on more than one occasion. It could be caused by being anxious or stressed at the clinic.
- Good blood glucose control and not smoking can help to protect your blood vessels.



## Cholesterol Screening\*

- High cholesterol can cause narrowing or a blockage of blood vessels leading to strokes and heart attacks.
- A blood test may be done to check your cholesterol level.
- If your cholesterol level is too high you will be able to see the dietitian for advice about what foods to avoid to help bring it down. You may also be given tablets by your diabetes doctor.

## Contact Numbers

School Nurse:

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Diabetes Specialist or Local Team:

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### Kidshealth

<http://www.kidshealth.org.nz>

### Starship Transition

<https://www.starship.org.nz/patients-parents-and-visitors/youth-transition/diabetes-service>

### Youth Law Aotearoa

<http://www.youthlaw.co.nz>

A series of leaflets is available that may be helpful for you:

- Annual Review
- Body Piercing & Tattooing
- Emotional Well-being
- Exercise
- Insulin Pumps
- Looking After Type 1 Diabetes
- Sensible Drinking
- Sex and Beyond
- Top Tips for School
- Travelling

**Ask your diabetes team for the ones you want.**

Provided by Lilly as a support to medicine and patients with diabetes. This leaflet has been written by the RCN Children and Young People Diabetes Community (CYPDC). Lilly's involvement is limited to production costs and a review of the content for medical accuracy only.

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