

## Complication Screening

Eye, nerve and kidney disease are complications of diabetes. Complications are not something that just happens to old people. They can also occur in young people with diabetes in their 20's or 30's.

There is good evidence that the risk of developing complications is greatly reduced by keeping your blood glucose levels (BGLs) under control, always having insulin and by eating a healthy diet. Other good news is that regular check-ups by a doctor may find early signs of complications, which can then be treated promptly or can delay getting complications. Some complications, if caught early, can be prevented from progressing any further, or even reversed.

**Important:** If your young person is not attending a diabetes specialist, ask their GP to arrange these tests. If any of the tests are positive their GP should refer them to a diabetes specialist immediately.

### Type 1 Diabetes - When to Start Screening?

Complication screening in young people with Type 1 diabetes should start once they have started puberty and have had diabetes for at least 2 years. In younger children (pre-puberty) screening should start once they have had diabetes for 5 years. Screening can also detect some medical problems that are more common in young people with Type 1 diabetes, like Thyroid and Coeliac Disease.

### What Screening Tests are Done?

This table outlines what tests need to be done and when, according to the National Evidence-based Clinical Care Guidelines for Type 1 Diabetes in Children, Adolescents and Adults<sup>1</sup>.

	When to commence	Screening frequency
<b>Blood tests:</b>		
<b>HbA1c</b>	At diagnosis	Every 3 months
<b>Coeliac</b>	At diagnosis	Annually
<b>Thyroid</b>	At diagnosis	Annually
<b>Retinopathy</b>	From age 9 if diabetes diagnosed 5 or more years previous; or from age 11 if diabetes diagnosed for 2 years	Annually if high risk, long duration of diabetes, high HbA1c or NPB retinopathy; otherwise Biannually
<b>Nephropathy</b>	Children – after 5 years duration or from age 9 Adolescents and Adults – after 2 years duration	Annually Annually
<b>Neuropathy</b>	One year after diagnosis.	Annually
<b>Blood pressure</b>	At diagnosis	At least annually

## Type 2 Diabetes – When to Start Screening?

Complication screening in young people with Type 2 diabetes should start when they are first diagnosed.

## What Screening Tests are done?

This table below outlines what tests need to be done and when.

	<b>At Diagnosis</b>	<b>Every 3 months</b>	<b>Less frequently</b>
<b>Measurement of:</b> Height & Weight Blood pressure	√ √	√ √	
<b>Blood tests for:</b> HbA1c Lipid disorders	√ √	√	√
<b>Examination of:</b> Eyes Kidneys (urine test) Feet	√ √ √		√* √ √

\* If fundal photography is used, then every 2 years

## References

1. National Evidence-based Clinical Care Guidelines for Type 1 Diabetes in Children, Adolescents and Adults - [http://www.nhmrc.gov.au/files\\_nhmrc/publications/attachments/ext004\\_type1\\_diabetes\\_children\\_adolescents\\_adults.pdf](http://www.nhmrc.gov.au/files_nhmrc/publications/attachments/ext004_type1_diabetes_children_adolescents_adults.pdf)
2. Global IDF/ISPAD Guideline for Diabetes in Childhood and Adolescence. [https://www.ispad.org/sites/default/files/resources/files/idf-ispad\\_diabetes\\_in\\_childhood\\_and\\_adolescence\\_guidelines\\_2011\\_0.pdf](https://www.ispad.org/sites/default/files/resources/files/idf-ispad_diabetes_in_childhood_and_adolescence_guidelines_2011_0.pdf)