

# Puberty

## Information for Parents & Carers

### Puberty, what is it?

This is when the body starts to produce larger amounts of growth hormone and sex hormones like testosterone and oestrogen. These hormones play an important role in growing and developing the body into its adult shape.

Hormones are chemicals produced within the body and carried by the blood stream to stimulate changes, e.g. growth hormones that stimulate the growth of bone and muscle during puberty.

### When does it begin?

Puberty begins over a wide range of ages for all teenagers - usually at about 10-14 years of age for girls and 12-14 years for boys.

### How can puberty affect diabetes?

These hormones have an effect on blood glucose levels because they make the body resistant to insulin. This in turn causes the BGL's to rise making it harder to control the diabetes. In other words, during this time a lot more insulin is usually needed to control the blood glucose levels (BGLs).

Due to these fluctuations in insulin requirements, frequent adjustment to the insulin dosage is required. It is not uncommon particularly in boys that insulin requirements can double during puberty.

### What physical changes take place during Puberty?

#### In boys

- Growth of muscle and bone, and a big increase in height
- The voice "breaks"
- Growth of hair on the face, underarms, chest, abdomen and pubic area
- Enlargement of the penis, the scrotum and prostate gland and spermatozoa is produced

#### In girls

- The reproductive organs i.e. the uterus (womb), the uterine tubes and the ovaries reach maturity
- The menstrual cycle (periods) and ovulation (production of eggs) begins
- The breasts develop and enlarge
- Pubic and underarm hair begin to grow

- There is a widening of the pelvis
- There is an increase in the amount of fat deposit in the body which results in a change in body shape.

### Do periods have any effect on diabetes?

The menstrual cycle (periods) affects every female differently with or without diabetes. In girls with diabetes it is common for the monthly changes of hormone levels to have an effect on their BGL's. It is not uncommon to see a rise in the blood glucose levels in the days leading up to the period and then a fall when the period starts.

It is important to look for a pattern in the blood glucose levels around the time of the period in order to make the appropriate adjustments to the insulin doses.

Your doctor or diabetes educator can help with this.