Precocious Puberty in Hydrocephalus
What is precocious puberty?

Hormones are chemical messengers that carry information from one cell to another in the body and are regulated by the pituitary gland located underneath the brain. These hormones are carried throughout the blood and are responsible for regulating many bodily functions including sexual development and the control of puberty. In the UK, the average age at which girls start breast development is eleven years old with periods starting at age thirteen. Boys usually start to develop body hair and changes in voice around the age of ten. It is generally considered that precocious puberty begins before the age of eight years old for girls and nine years for boys. The programming of puberty is partly determined by inheritance so that girls usually match their mothers and sisters as to the onset of periods but a variety of brain upsets, including hydrocephalus, can disrupt this delicate programme and allows the early onset of puberty.

What are the signs of precocious puberty?

The signs are the same as those for regular puberty.

In girls this includes:

- Breast development
- Pubic and underarm hair
- Menstrual bleeding happens towards the end of puberty
- Increased growth rate
- Acne/greasy skin and hair/noticeable body odour
- Mood swings

In boys this includes:

- Pubic, underarm and facial hair
- Changes in voice
- Increased growth rate
- Acne/greasy skin and hair/noticeable body odour
- Mood swings/aggressiveness

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If I think my child may have precocious puberty, what should I do?

You should consult your child’s hospital Consultant, if they have one, as soon as you feel your child has these physical changes. If your child does not have a Consultant, you should ask your GP for a referral to an Endocrinologist who specialises in treating problems with the body’s hormones and glands (the endocrine system). The Endocrinologist will arrange some tests to be able to make an accurate diagnosis and to determine what, if any, treatment will be required. Such tests usually require a hospital visit for a day and there are a number which can be carried out including measuring bone maturation by checking the so called “bone age” on an X ray of the left hand and wrist. Regular growth measurement and physical development should also be documented and compared with normal rates of development. In girls, ultrasound scanning of the ovaries and uterus can also be carried out. When treatment is underway, some tests will probably require to be carried out every few months, especially for the first year. This will help to confirm that your child is responding to treatment appropriately, in addition to the clinical assessments of growth rate and sexual development.

The aim of treatment is to reverse or slow down the onset of sexual maturity. It can help stop puberty until the child is closer to the normal age for sexual development. One reason to consider treatment is that rapid growth and bone maturation can prevent a child from reaching their full height potential. Another reason for treatment is that a young child may not be psychologically ready for the physical and hormonal changes which occur during puberty. Treatment is by monthly hormone injections and with the appropriate help and intervention there should be no problems in later life. However not all children require treatment and you should be guided by the advice of the Endocrinologist.

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Are there side effects of this treatment?

During the first 6 weeks of treatment girls may experience mood changes; acne; an increase in breast size and vaginal bleeding. Boys may have an increase in pubic hair and development of his testes as well as acne. These effects however are temporary and should be controlled by the seventh week of treatment. There may also be redness and slight pain at the site where the injection is given.

If precocious puberty is diagnosed, it is important that you talk to your child and explain about the changes they are experiencing and the reason for these changes. If you find this difficult, ask the Endocrinologist or specialist nurse to talk to your child. Encourage them to talk about their feelings and reassure them that they are going through normal changes but a little earlier than their friends.

Some children can exhibit behavioural difficulties, which are often likened to mood swings – girls especially can become very anxious if they feel different from their peers. Be aware of the effects of mood swings and if you feel these are unmanageable discuss this with your child’s Specialist. You should also ensure your child’s teacher is aware that your child has precocious puberty and the effect this may have on them. It is also useful to find out at which age the school commences their sex education programme.