Vaginal Hypoplasia

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What is vaginal hypoplasia?
The word “hypoplasia” means “under-developed”. A woman with vaginal hypoplasia will have a vagina that is likely to be too small to comfortably have sex. Some times doctors use other words to refer to the same thing such as “aplasia” and “agenesis” which both mean “not developed at all”.

Why is this important?
The vagina has two jobs to do. Firstly it is a passageway to allow menstrual blood to leave the uterus (womb) and secondly it is necessary for sexual intercourse involving penetration. If the uterus (womb) is present and the vagina is underdeveloped, then menstrual blood can become blocked in the abdomen. In AIS, the uterus does not develop so this is not a problem although in some related conditions it can be. The main role of the vagina in AIS is to allow sexual intercourse.

How long should a vagina be?
There is very little information on how long a vagina should be. There is a wide range of normal. However in our unit we did measure the length of the vagina in women without AIS and it measured between 6 and 12 cm. There is also little information on the average vaginal length in women with AIS and this can also be very variable. However some women with AIS will have a vagina than may measure only one or two centimetres in length. You may see this referred to as a vaginal “dimple”.

When will I know if my daughter has a short vagina?
Your daughter will need an examination by a gynaecologist experienced in looking after women with AIS and related conditions.

When will this examination be done?
If your daughter is diagnosed with her condition early in childhood, then the vagina may be examined as part of the investigations. In this case she would be examined under a general anaesthetic and this is usually combined with procedures to check the other internal organs.
This would be what happens if your daughter has partial AIS. An examination at this age will give you some information about vaginal size but cannot predict accurately whether your daughter will need treatment. The vagina does grow during childhood especially during puberty and so it is likely another examination would be needed sometime during adolescence.

If your daughter is diagnosed with her condition during her teenage years, then sometimes a vaginal examination is suggested as part of the investigation. However the diagnosis can be made without examining the vagina. Many teenagers are reluctant to be examined and this examination can easily be deferred until later on.

**How is the examination done?**

If your daughter is in early childhood, the examination of the vagina is performed under a general anaesthetic as part of the investigation to find a diagnosis.

If your daughter is a teenager then there are two possibilities;

1. If your daughter has Partial AIS, she may already have had surgery as a baby to the vaginal area. If this is the case, then the vagina usually needs to be examined under a general anaesthetic. This is because a small telescope may need to be inserted to see if any vagina remains from the childhood surgery. It also means any scarring can be examined and nearby organs such as the bladder checked.

2. If your daughter has not had surgery to the vaginal area, then she can be examined in the clinic without needing admission to hospital.

**When should the examination be done?**

There are several issues which indicate the best time for a vaginal assessment;

1. The vagina does not finish growing and developing until puberty is complete. This means the most sensible time to examine the vagina is after puberty whether this is a natural puberty or as a result of taking oestrogen. This usually would mean after at least the age of 14 years or later.

2. The vagina’s only role is for sexual intercourse so the examination does not need to be done until your daughter is ready to start thinking about sex and relationships. This can vary enormously between girls and there is no right age to do this.
What does it involve?
The examination will be done by a gynaecologist with experience in this area. The outside genitals (labia and clitoris) are inspected. These are usually normal in CAIS but in partial AIS there may be clitoral enlargement or scarring from previous surgery. The vaginal length is measured by inserting a cotton bud covered in lubricating gel. The width and stretchiness of the vagina is usually measured by inserting a single finger into the vagina.

What might be found?
The vaginal length and size may be normal. In this case your daughter will be reassured and no further treatment is necessary.

The vagina may be short. It may be slightly shortened or very short indeed – a “dimple”. In this case treatment will be needed before intercourse.

What kind of treatments are available?
Most girls and women with AIS are successfully treated with vaginal dilators. These are plastic shapes which the girl inserts into the short vagina for 30 minutes each day. They are graduated in size from small to large. When she starts dilation she will be shown how to insert the dilators and is usually reviewed by the hospital on a regular basis until treatment is complete. Research from our unit has shown that 85% of women will achieve a normal vaginal length using dilators. The treatment is time consuming and can take 3 to 6 months to complete. Once the vaginal is a normal length she will still need to use the dilators 2 or 3 times a week to maintain the vaginal size until she is sexually active. The 15% of women where dilators do not work usually need surgery to construct a vagina.

If on the initial vaginal examination your daughter has scarring from previous surgery or does not have a vaginal dimple (usually in PAIS), then dilation will not work. Surgery is then the first choice for treatment.

When should she start dilation?
Dilation should only be started when your daughter wants to create a vagina. She need to be confident enough to insert the dilators and motivated to do them on a regular basis. She does not need to have a partner before starting treatment and many girls and women prefer to create a vagina before entering a relationship. However if she does not have a partner, she will need to dilate the vagina regularly until she is sexually active. Although the dilators
work well, some girls find them difficult and upsetting to use. Some older teenagers and young adults prefer to use vibrators to keep the vagina open as they are less “medical” and this is of course fine.

**What surgery is available?**

If your daughter is unsuccessful with dilators we usually recommend a laparoscopic Vecchietti procedure. This is keyhole surgery and involves a general anaesthetic. An acrylic “olive” is placed in the vaginal dimple and nylon threads are passed from the olive and up through the vaginal dimple, through the abdomen and out onto the front of the abdomen. The threads are attached to a device which is tightened every day to stretch the vagina. The procedure can be painful and requires one week in hospital. After the operation, the patient needs to use vaginal dilators three times per week until she is sexually active.

If your daughter has scarring from a previous operation or has no vaginal dimple then a Vecchietti operation cannot be done. In this situation there are several other options for surgery. These depend very much on the individual patient and doctor and would be discussed at the time.

**Can my daughter choose to go straight to surgery rather than dilation?**

No- not if there is a vaginal dimple present. Dilators work well in most women and avoid the risk of surgery. Even if your daughter eventually needs surgery, she will need to use the dilators after any operation and so will need to learn what to do.

**Will her sex life be normal?**

Women with vaginal hypoplasia can have a normal sex life after treatment. The most sensitive areas of a woman’s genitals are the clitoris and labia (lips) and these are not affected by vaginal hypoplasia. After treatment for hypoplasia, a sexual partner is unlikely be aware of any differences with other women.