



Title: Human Fertility and Reproduction

Level: SENIOR

Links to Curriculum for Excellence

In terms of Curriculum for Excellence this level is concerned with extending or deepening what is described at Fourth Level.

Experiences and outcomes	Benchmarks
<p>I understand my own body's uniqueness, my developing sexuality, and that of others. HWB 4-47a</p> <p>I know how to access services, information and support if my sexual health and wellbeing is at risk. I am aware of my rights in relation to sexual health including my right to confidentiality, and my responsibilities, including those under the law. HWB 4-48a</p>	<p>Understands the rights and responsibilities required for safe and enjoyable sex.</p> <p>Explains how to access both local and national information, guidance and help.</p>

Learning intentions

- Young people reflect on important aspects of human fertility and reproduction.
- Young people understand that choices made now and in their early adult life can impact on fertility.
- Young people understand that some pregnancies end in miscarriage.
- Young people understand the menopause and that it can affect physical and mental health.

Success criteria

- I can reflect on the connection between good general health and aspects of human fertility and reproduction.
- I understand the common causes of infertility.
- I understand that miscarriage affects many families.
- I understand that the menopause is the natural time in a woman's life where she experiences changes in hormones, that this can affect physical and mental health, and that women who have been through the menopause can no longer become pregnant.
- I understand that menopause can be experienced early and that this can be caused by some medical treatments as well as occurring naturally.

Resources to support this activity

- PowerPoint slides
- Film: ***Finding out why miscarriage happens*** (2 minutes 56) <https://youtu.be/4JPDNZ0iVpk>
- Film: ***Your Fertility Matters*** (3 minutes 51 secs): <https://youtu.be/ETwDCKBaYd4>
- Film: ***What really happens to your body during menopause? Body stuff with Dr Jen Gunter*** (5 minutes) <https://youtu.be/cheqkrCHkrl>

NOTE:

- Elements of this activity reflect learning in the Senior Phase session **Planning for Parenthood** in terms of an understanding of pre-conception health.

- There is a lot of interesting content here, if this could be delivered over more than one session this would support learning and build interest.
- This is a broad topic. There are lots of signposts to further information provided later – this may spark interest and possibility of further topic/project work.

Whenever you use content on a platform like YouTube please cue the film you intend to play in advance, check it is the film you want to view, and skip adverts.

Activity

1. **Human fertility and reproduction.** Introduce the activity with the slide, checking understanding about the terms used. Acknowledge that pregnancy and trying to conceive a baby can be stressful times for families. Also state that there is no assumption that the young people want to have children – they may not. Also note, in particular the experience of miscarriage is very difficult for people, but all the aspects of the activity today are about aspects of human fertility and reproduction.

Slide:

Fertility is the natural capability to produce offspring.

Reproduction (or procreation or breeding) is the biological process by which new individual organisms – "offspring" – are produced from their "parents".

In this activity we talk and learn about:

- Pregnancy
- Miscarriage
- Fertility
- Infertility
- Menopause

2. **Let's remember what we learned a long time ago....**

Slides 3, 4 and 5 review prior learning about sex/reproduction/conception/pregnancy. As an option, there are two short films about *human reproduction* and *how a baby develops during pregnancy* which you may want to watch if this will help young people remember this learning.

3. **Miscarriage.** Slides 6 and 7 explain what this is and how common it is, with slide 5 highlighting that the occurrence of miscarriage increases with the age of the woman. The film linked to in slide 7 is produced by Tommy's, a charity funding research into the causes of miscarriage, stillbirth and premature birth. Work through the slides and watch the film together.

Slide

A miscarriage is the loss of your baby before 24 weeks. Early miscarriages happen in the first 12 weeks of pregnancy. A woman may have a miscarriage before they even know they're pregnant. If this happens it can feel like a late period with heavy bleeding.

- 1 in 4 pregnancies end in miscarriage.
- In women of 20, around 15% pregnancies will end in miscarriage
- In women of 30, around 18% pregnancies will end in miscarriage
- In women of 40, around 38% pregnancies will end in miscarriage

- In women of 45, around 70% pregnancies will end in miscarriage

Slide

- Most of the time there is no clear reason why it happens, but it is very unlikely to be caused by anything a woman did or didn't do.
- Doctors think most miscarriages are caused when the building blocks controlling the development of a baby (the chromosomes) aren't right. Babies with too many or not enough chromosomes won't develop properly and this can lead to a miscarriage.
- The experience of miscarriage is unique to each person and for some it may be a time of sadness and feelings of loss and grief.

Film: ***Finding out why miscarriage happens*** (2 minutes 56)

<https://youtu.be/4JPDNZ0jVpk>

4. **Human Fertility.** The slide shares the definition again, and poses a question to be put to the class/group. The topic may or may not be one which young people have thought about, explore why so? Of course, be sensitive to the fact that some young people will come from families where fertility is a concern. The slide reads:

Fertility is the natural capability to produce offspring.

Have you ever thought about your fertility?

Women have a hormonal cycle which determines when they can get pregnant.

The cycle is approximately twenty-eight days long, with a fertile period of five days per cycle, but this does vary between women.

Men are fertile continuously, and their sperm quality is affected by their health, frequency of ejaculation, and environmental factors.

Everybody has a different level of fertility. Sometimes it isn't possible to find out why a person is infertile.

Film: ***Your Fertility Matters*** (3 minutes 51 secs): <https://youtu.be/ETwDCKBaYd4>

After viewing, review with the class/group what they think are the most important things for them from the film.

5. What is infertility? Slides 9 and 10 address infertility.

Slide 9

Some women get pregnant quickly but for others it can take longer. If a woman cannot get pregnant this may be because she or a male partner may be infertile.

There are a number of things that can cause infertility, many can be treated successfully.

Causes in men

- Low sperm count due to conditions like diabetes or hormonal variations
- Sexual problems like premature ejaculation, erectile dysfunction
- Overexposure to certain chemicals
- Smoking
- Certain medications

Causes in women

- Ovulation disorders/Variations in hormones

- Problems with the uterus, for example Endometriosis - thickening of the Uterine walls
- Overweight
- Infections that are sexually transmitted
- Being exposed to certain types of chemicals

Slide 10

- Infertility affects one in seven couples.
- Age and lifestyle factors affect both male and female fertility.
- STIs are one of the biggest preventable causes of infertility in teens – using condoms protects against STIs.
- 20% of women in the UK do not have a child: this includes women who wanted to but couldn't.
- Fertility treatment can't help everyone.

6. **Are you thinking about your fertility in any new ways now?** Having watched the short films and had some time to reflect on the information, pose the question to the class/group and seek views.
7. **What is the menopause?** Explain that as the class/group have been thinking about fertility and reproduction there comes a natural time in a woman's life where hormones decline - this can affect how she feels physically and mentally. Use the slides to discuss – checking current awareness/knowledge and what is new.

Menopause

- The word *menopause* means *final period*.
- The menopause is a natural part of ageing that usually occurs between 45 and 55 years of age, as a woman's oestrogen levels decline.
- However, around 1 in 100 women experience the menopause before 40 years of age. This is known as premature menopause or premature ovarian insufficiency; it can happen naturally or as a side effect of some medical treatments
- Some women experience few symptoms of menopause, but for others it can be a really difficult time, affecting how they feel physically and mentally. Women will need help and support during this time from family, friends and the workplace.

Watch this short film together and afterwards check understanding and ask young people to consider: as menopause is such a natural part of a woman's life how can we best support women when they go through it? At home? At work?

- **What really happens to your body during menopause? Body stuff with Dr Jen Gunter** (5 minutes) <https://youtu.be/chegkrCHkrl>

8. End with acknowledgement of all the contributions today. Highlight any additional sources of information or support that young people might be interested in.

More information and support on the topics in this activity is available

Miscarriage:

- **Scottish Care and Information on Miscarriage**
<http://www.miscarriagesupport.org.uk/>
- **FAQs about miscarriage:** <https://www.tommys.org/pregnancy-information/pregnancy-complications/pregnancy-loss/miscarriage/frequently-asked-questions-about-miscarriage>

Infertility

- **Causes of infertility**, NHS information:
<https://www.nhs.uk/conditions/infertility/causes/>

Menopause

- Lots of information from NHS Inform here <https://www.nhsinform.scot/menopause>
- **What Menopause Feels Like** (11 minutes 38) women share how menopause is experienced for them <https://youtu.be/MRSH-UM5EE0>
- Information about **hormone replacement therapy**:
<https://www.nhs.uk/conditions/hormone-replacement-therapy-hrt/>
- For women who experience **premature menopause** [Charity for Women with POI | The Daisy Network](#)
- **Rock My Menopause** is a campaign to stamp out taboo and prejudice around menopause [Rock My Menopause - Menopause Information](#)
- <https://www.menopausematters.co.uk/> is an award winning, independent website providing up-to-date, accurate information about the menopause, menopausal symptoms and treatment options. Here you will find information on what happens leading up to, during and after the menopause, what the consequences can be, what you can do to help and what treatments are available.
- Young people may ask 'is there a male menopause? Men can experience loss of sex drive, erectile dysfunction and other physical and emotional symptoms in their 40s/50s but this is not the result of hormones as in the female menopause. So in this sense it is not a helpful term. More information here:
<https://www.nhs.uk/conditions/male-menopause/>

Practitioner notes

