Key learning outcomes:

- Identify the key anatomical features of the male and female reproductive systems
- Describe the basic anatomy of the pelvis
- Explain the anatomical differences between males and females
- Appreciate histological features of male and female reproductive systems
- Explain the process of spermatogenesis and transport of sperm
- Explain the stages of the menstrual cycle and hormones involved

ANATOMY

It’s important to familiarise yourself with the male and female reproductive systems, because without them … we wouldn’t exist! There are key differences between the male and female organs themselves, but also in surrounding body structures due to functional adaptations. Some of you may know parts of this content already which is great and this resource will help to build from this!

To start off as always, check out these overview videos to set the scene:

- Armando Hasudungan- 12m (WATCH) | Khan Academy - 6m (WATCH)

MALE

This video will outline the key features of the male penis and related structures

FEMALE

This video will outline the key features of the female reproductive organs

Pelvic anatomy is learnt alongside the reproductive system because the pelvis is useful to differentiate between the male and female body - this article will cover the bones which form the hip and give insight into the comparison (READ)

Here is a video to watch which covers the basic anatomy and differences as well

MICROANATOMY

So for microanatomy, we will begin with ladies first! This detailed guide will take you through how to identify structures under the microscope and explain the process of maturation of follicles - linking into the physiology of the menstrual cycle. Here is also a playlist of short clips which talk through some of the structures mentioned (but ignore placenta). For now, just gain an appreciation -don’t get too bogged down into the details, you will have plenty of
practice in the future to get to grips with it. As always, you can test your knowledge here with these slides (excluding 16-18 for now)

Similarly, for males, this guide will take you through features of structures and glands, plus an insight into the process of spermatogenesis. Here are some short clips of those mentioned in the guide too: penis | testis | epididymis | vas deferens | seminal vesicles | prostate. Try out these slides as well!

**PHYSIOLOGY**

As mentioned in resource 6 (endocrine), there is a large hormonal input into the reproductive system. This resource will focus on processes that occur before fertilization (as you cover embryology in a lot more detail in Year 2). This time we will start off with males! This Crash course video will recap some of the anatomy and look at sperm production and its transport too. For more information, here is a selection of videos to gain a greater insight:

<table>
<thead>
<tr>
<th>Spermatogenesis</th>
<th>Transport of sperm via erection and ejaculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armando Hasudungan 8m (WATCH)</td>
<td>19m (WATCH) - recaps anatomy as well</td>
</tr>
<tr>
<td>Khan Academy 10m (WATCH)</td>
<td>11m (WATCH)</td>
</tr>
<tr>
<td></td>
<td>- more info on testosterone (here)</td>
</tr>
</tbody>
</table>

For females, this resource will focus on the menstrual cycle - this Crash course video will recap some anatomy and go through this graph which you will see time and time again at medical school so it is important that you have an understanding of it! Here’s another video recalling this info too!

**CHAPTER SUGGESTIONS**

If you like to read instead, these online chapters give an overview of the function of the system, anatomy and microanatomy discussed in the videos:

- Chapter 27.1: Anatomy & Physiology of the Male Reproductive System (READ)
- Chapter 27.2: Anatomy & Physiology of the Female Reproductive System (READ)
- Reproductive System (including Male & Female) (READ)

**To finish off, try these quizzes to see what you have learnt!**

- Reproductive anatomy:
  - Male: Quiz 1 (GO) | Quiz 2 (GO)
  - Female: Quiz 1 (GO) | Quiz 2 (GO)
- Reproductive physiology: Quiz 1 (GO) | Quiz 2 (GO)
- CHALLENGE: See if you can identify detailed features of the pelvis (GO)

Hope you have found this resource useful! Once you have completed this, please give some short feedback - it will take 10 seconds to fill in! This will help me to get your opinions and check engagement! (GIVE FEEDBACK)