

Testicular Health

Lesson Plan

and Resources

If pupils are known to *have* (or *have family members with*) *cancer*, they should be prepared for the lesson content beforehand.

A lesson prepared by Dr Vicky Stubbs at Highgate School with NHS Barts Health Urology Network

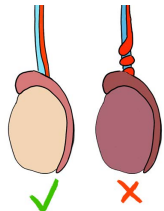
Lesson objectives - Pupils are expected to learn about testicular health, with a focus on torsion and testicular cancer.

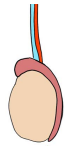
Minimum lesson time = 45 min, depending on activities used, but this can be split into 2 lessons or extended by using more or different activities/resources.


Lesson outcomes - By the end of the lesson, pupils should be able to:

- recall basic testicular structure and location
- identify the sort of testicular/lower abdominal pain that could be testicular torsion and describe this to a trusted adult
- explain why testicular torsion is a medical emergency and what to do if they suspect torsion
- explain why it is important to check testes regularly for any new lumps
- recall where they can find more information about, and help with, any testicular health concerns

Timing	Pupils' Learning	Materials needed
3 min	<p>Starter: Get pupils to look quietly at slide 2 on the PowerPoint and try to think through how many labels they can recall from science and general knowledge. (They will have to fill in a worksheet later.)</p> <p>Once everyone is settled in, <u>tell pupils</u> that genitals will be discussed as well as cancer. <u>Explain</u> that there will be information at the end of the lesson to show them where to find out more or seek help with any testicular health concerns. <u>Explain</u> that they can ask questions at any time and also point out the anonymous question box.</p> <p>Get pupils to suggest brief ground rules and write these on the whiteboard. They should include:</p> <ul style="list-style-type: none"> • respecting and listening to each other • any disagreement to be done politely • not laughing at one another (laughing about the material in the lesson is fine) • not sharing anything personal about yourself or anyone else • the right to 'pass' if you don't want to comment 	<p>Testicular Health PowerPoint</p> <p>Whiteboard and markers</p>

Timing	Pupils' Learning	Materials needed
<p>5 min</p> <p>3 min extra</p> <p>4 min</p>	<p>Basic male genital anatomy</p> <ul style="list-style-type: none"> Baseline assessment: Pupils fill in Worksheet 1 on typical male genital anatomy, then check their answers using the PowerPoint, slide 3. <p>(Extension: pupils could <i>annotate</i> their diagrams from further Ppt slides to show what they know about the <i>function</i> of testes and prostate and the route of semen from testes through the urethra. This may be better for older pupils).</p> <ul style="list-style-type: none"> Pupils learn briefly about the inguinal canal, how and when <i>testes descend</i> and what can go wrong here (PowerPoint slides 4-6). <ul style="list-style-type: none"> Non-descent/missing Hernias (and when these are most common) <p>(This part could be left out if time is limited or where the pupils may need to spend longer reinforcing the main messages on torsion and cancer.)</p> Remind pupils about the question box and give each pupil at least one slip of paper that they can write questions on. Tell pupils when these questions will be answered. Asking ALL pupils to write something (even if it's just 'no question') prevents unwanted attention being drawn to those who do have genuine questions they may feel shy about asking. 	<p>Testicular Health Powerpoint</p> <p>Worksheet 1 Male Reproductive Anatomy (one per pupil)</p> <p>Question Box and paper slips</p>
<p>2 min extra</p> <p>10 min</p>	<p>How and why testicular torsion occurs:</p> <ul style="list-style-type: none"> Optional extra baseline assessment: Ask the class how confident they feel in their knowledge of testicular torsion (<i>don't</i> explain it at this stage): (hands held high = confident, hands on desk = not at all confident, hands hovering = in between) Teachers can record tallies of each category if desired. Show slide 7 and play the 'What is Testicular Torsion' video from http://www.testicularhealth.info/educational.html showing the anatomy of a healthy testis then torsion. Get pupils into small groups and discuss the following Q (also on slide 8): <ol style="list-style-type: none"> What can you see happening in the animation? Why is this a problem? What do you think the symptoms might be? What do you think a boy/young man should do if he suspects torsion? How worried should we be about testicular torsion? They should write brief answers into Worksheet 2. Now watch the 'More Information About Torsion' video from the same site, then discuss their answers using slides 9-11 to cover <ul style="list-style-type: none"> Symptoms Why it's vital to seek help quickly Why it's no big deal if caught early, but much worse if not. 	 <p>Testicular Health Powerpoint (Link to video within Torsion website)</p> <p>Worksheet 2 Testicular Torsion, What do you Think? (one per pupil)</p>

Timing	Pupils' Learning	Materials needed
<p>10 min for pupils to make their own model</p> <p>OR</p> <p>3 min if passing round a ready-made one</p>	<p>What healthy testes look and feel like:</p> <ul style="list-style-type: none"> EITHER Pupils <i>watch a teacher demonstration/look at the sheet</i> on how to use the materials to make a model testis and then have a go at making their own, complete with a bead stuck into the modelling clay. Pupils pop the model into a small plastic bag and then put this bag into a second bag and feel it (<i>the two bags allow slippage between them so feel a bit more like a testis moving within the scrotum</i>). OR they pass around a model the teacher has made before the lesson, if this seems more appropriate for the group / lesson time is limited). Bear in mind that some boys may not want to touch it. However, they should be gently encouraged to note how the hard bead feels compared with the slightly squishy clay. Ask pupils what they think the bead may represent? (a tumour) 	<p>Testicular Health Powerpoint slide 9</p> <p>Instructions for modelling a testis, plus: Modelling clay, thread, hard beads (c. 5-9 mm across), mini plastic bags.</p> <p>OR A model testis made before the lesson using the instructions.</p>
10 min	<p>Testicular cancer:</p> <ul style="list-style-type: none"> Show slides 13-15 on testicular cancer and then this 4-minute video on self-examination: https://www.youtube.com/watch?v=CEFsKSOJdhY from http://www.testicularhealth.info/educational.html. Discuss who to talk to (within your school or beyond) when things don't feel normal. You may want to reinforce the boundaries of confidentiality. 	<p>Testicular Health Powerpoint</p>
<p>8 min for ball game</p> <p>OR</p> <p>5 min For quiz & answers</p>	<p>Learning check:</p> <p>EITHER use a 'testicle' (mini test) in the form of the Ball Game (slide 17):</p> <ul style="list-style-type: none"> Divide pupils in 2 teams. The teacher has the list of questions and is the referee. A pupil throws the ball/beanbag to one person, who has to answer a question chosen by the teacher from the list. <i>(they can pass if they don't know, and try next time, but ideally the teacher should choose questions carefully so the same pupils don't have to pass every time, or the confident ones will answer all the Q and the less confident may feel bad)</i> If correct, one point to their team That person then throws the ball to someone in the other team who has yet to answer a question. Each team gets the same number of questions (depending on time available) and the team with the most points wins. <p>OR check knowledge and understanding using the mini-quiz, individually or with small groups. (Alternatively, you could use the 'testicle' during the lesson and then check recall later in the term with the quiz.)</p>	<p>Testicular Health Powerpoint</p> <p>Soft ball or bean bag Balls Game Q</p> <p>Mini-quiz worksheets</p>

<p>3 min if using top 3 points</p>	<p>Learning Assessment:</p> <p>Ask pupils for their top 3 'take-home' points:</p> <p>Pupils volunteer the 3 most important things they've learned this lesson. Hopefully they will include the below:</p> <ul style="list-style-type: none"> • If you have severe pain in one testis or pain that won't go away after an hour, it may be testicular torsion. (Pain may be felt in the lower belly also/instead). • Torsion is rare but if you think you have it, you need to get to an emergency doctor quickly – <i>don't</i> let shyness or busyness delay you from talking to someone about it, even if it happens in school or when out with friends. • If you find a new lump on a testis, go to the doctor to check it out just in case it's testicular cancer. It's unlikely to be cancer, as there are other reasons for lumps, but it's worth checking because early diagnosis almost always leads to successful treatment. <p>Show the slide 18 with the SAVE acronym.</p>	
<p>>1 min if using website</p>	<p>AND IF YOU HAVE TIME:</p> <p>Show the pupils around the Testicular Torsion website here:</p> <p>http://www.testicularhealth.info/</p> 	
<p>2 min</p>	<p>Finally, remind pupils that both testicular torsion and testicular cancer are rare. They do not need to worry about these conditions. The reason we teach about them is because treatment is so successful with early diagnosis.</p> <p>Remind pupils who they can talk to within school if they are worried, and where they can go in the local area if they'd rather talk to someone outside school, e.g. their GP.</p> <p>Remind pupils that they can pop any outstanding questions into the question box, and tell them when you plan to answer them.</p>	

Additional extension ideas:

For **pupils who might benefit from a challenge**, or for a **homework task**, you could ask pupils to do one of the following:

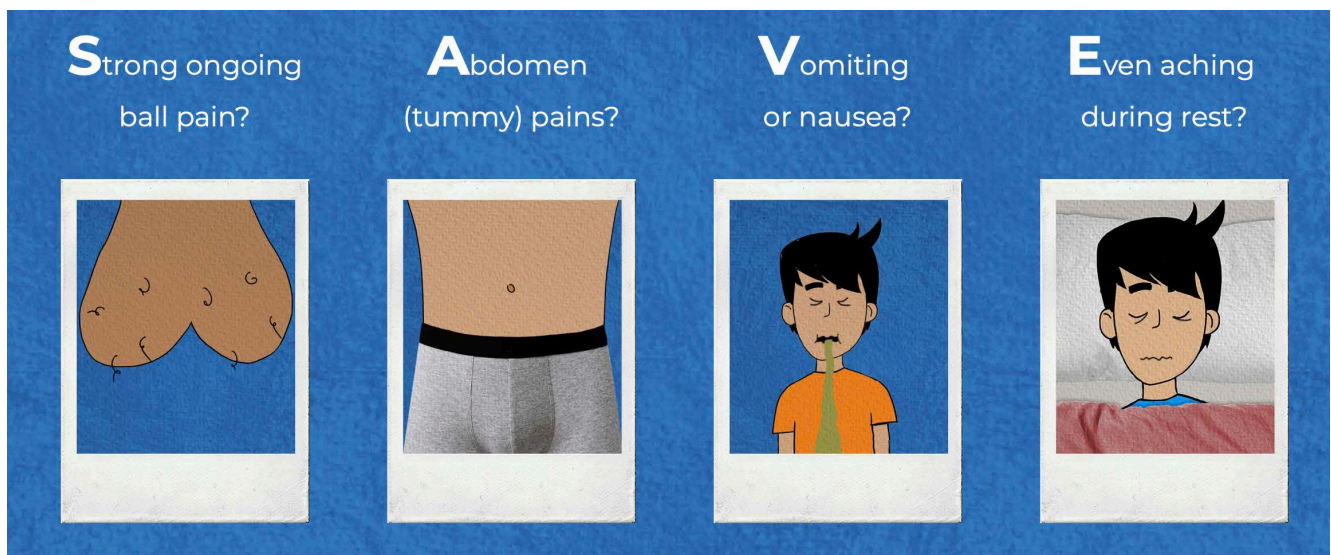
- Write some advice for a boy their age who is worried about either testicular torsion or testicular cancer, encouraging them to get themselves checked and explaining how to do this and where they should go.
- Write a script for how they might tell a trusted adult about possible symptoms of either testicular torsion or testicular cancer, and what they imagine the adult would say and do. (Having a script can reduce worry about 'impossibly embarrassing' conversations.)
- Work alone or in a small group to brainstorm things that may make it difficult for a person to seek help when faced with worrying symptoms of either testicular torsion or testicular cancer, and then work out how that person might overcome these barriers.

Lesson Resources and Worksheets can be found on the following pages.

Testicular Health Lesson Resources

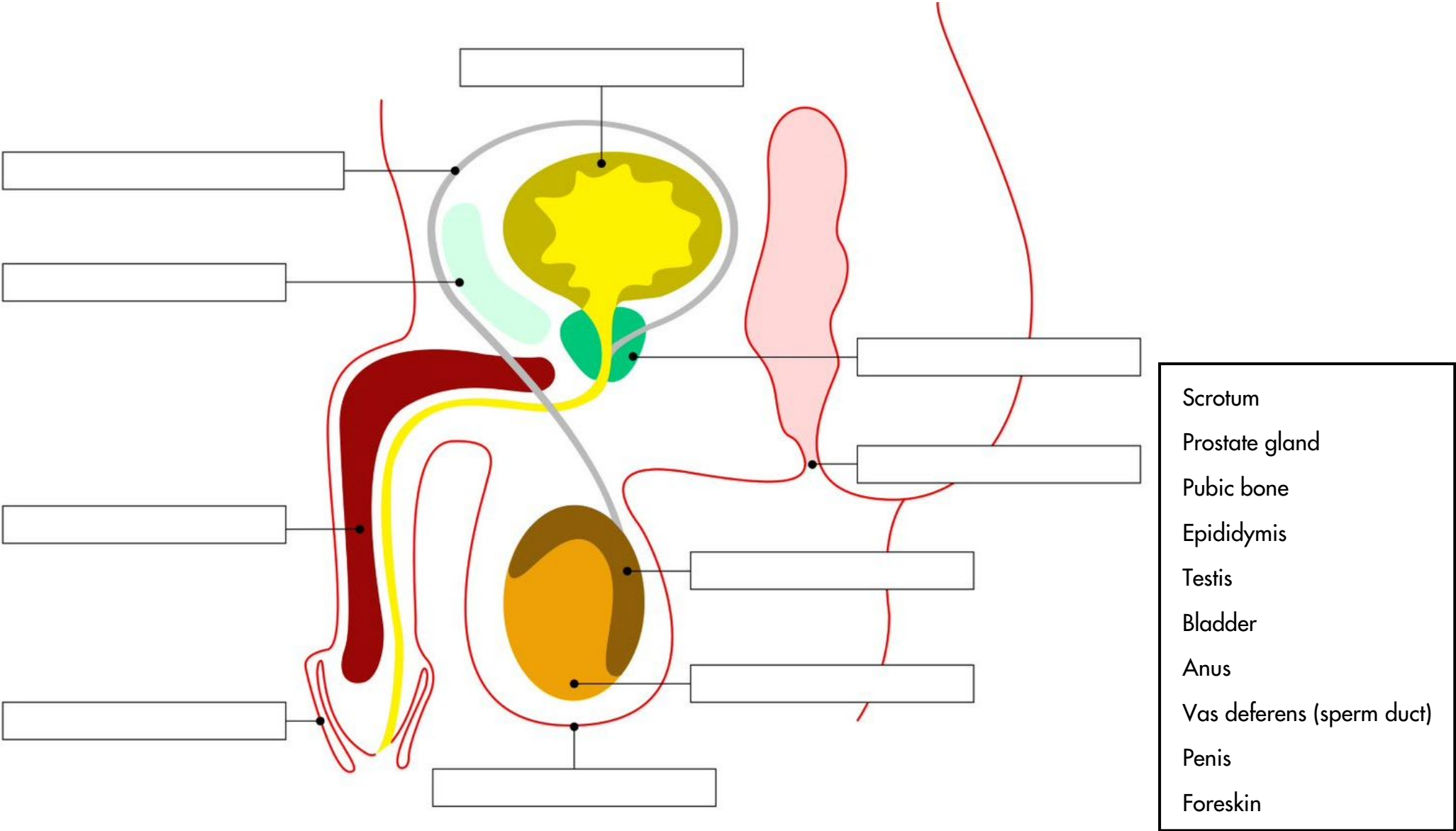
The following pages contain the worksheets and resources for use within this lesson.

1. The Testicular Health PowerPoint can be found under 'Educational Resources' here:
<https://www.testicularhealth.info/educational.html>
2. The worksheets should be printed off and used individually or within small groups.
3. The Ball Game only needs one printed copy, for the teacher.
4. The Quick Quiz needs one per pupil or one per small group, but only one copy of the answers, unless pupils keep a PSHE information file or book.
5. Instructions for making a Model Testis.



Act fast to SAVE the ball!

Male Reproductive Anatomy – Use the words on the right to fill in the diagram labels



Testicular Torsion – what do you think?

1. What can you see happening in the animation?

2. Why do you think this could be a problem?

3. What do you think the symptoms of testicular torsion might be?

4. What do you think a boy/young man should do if he suspects torsion?

5. How worried should we be about testicular torsion?

Ball Game – a little Testicle (to test Testicular Health knowledge)

- Divide pupils in 2 teams.
- The teacher has the list of questions below and is the referee.
- A pupil throws the ball to one person, who has to answer a question (*they can pass once if they don't know, and try next time, ideally with an easier question*).
- If correct, one point to that team
- That person then throws the ball to someone in the other team who has yet to answer a Q.
- Each team gets the same no. of Q (depending on time available) and the team with the most points wins.

Questions for the teacher to ask pupils (most important Q highlighted):

Question	Answer
1. What is testicular torsion?	When the testis twists and doesn't swing back again, cutting off the blood supply.
2. What are the main symptoms of testicular torsion?	Pain in only one testis (it's rare for torsion to occur in both testes simultaneously). Some get pain in their lower abdomen/belly, with or without testis pain. Quite a lot feel nauseous/like they might vomit.
3. What should a person do if they suspect testicular torsion?	If pain is severe, go straight to a hospital emergency department and tell them you suspect torsion. If the pain is not too bad, wait ONE HOUR. If the pain has not disappeared after this hour, go straight to an emergency department.
4. What are the risks of leaving torsion untreated?	The testis may die, which means it has to be removed and this can reduce fertility later.
5. Is testicular torsion very common/quite common or not very common in boys of school age?	Not very common. (Only around 1 in 4000 men/boys get this each year, which translates to around 1 in 800 boys experiencing torsion before the age of 18.)
6. So why should we learn about torsion now?	Adolescents and young men are at the greatest risk of testicular torsion. (It can also occur in babies but they're a bit young for this lesson.)
7. What are the symptoms of testicular cancer?	A firm or hard lump on the smooth part of the testis (not usually found on the squidgy bit at the back which feels soft and uneven anyway) Or if one testis increases in size much faster than the other one.
8. Is testicular cancer very common, quite common, or not very common in boys of school age?	Not very common. (1 in 12000 men/boys are diagnosed with testicular cancer each year. This translates to somewhere around 1 in 250 boys/men experiencing testicular cancer during their lifetime. Testicular cancer is more common in men in their early thirties and is also a bit more common when men are elderly.)
9. What are my chances of survival if I do get testicular cancer?	Extremely good. Pretty much everyone survives testicular cancer if it's caught early, and most survive even fairly late diagnoses.
10. What is the squidgy bit at the back of the testis called? (where sperm mature)	The epididymis.

Testicular Health Education Quick Quiz

1. Testicular torsion occurs when a testis twists around the penis

- ☐ True
- ☐ False



2. Torsion can...(choose as many of the options as you think are true)

- ☐ happen during exercise
- ☐ happen while you are sleeping and the pain can wake you up
- ☐ cause abdominal pain (pain low down in your tummy) with or without pain in one testis or both testes
- ☐ make you feel like you might vomit

3. If one testis suddenly starts to hurt badly, or if I have pain low down in my tummy, I should

- ☐ Make an appointment to see my GP within 48 hours. My GP knows me best so I'll find them easier to talk to.
- ☐ If the pain is severe, go immediately to the nearest hospital A&E that has a paediatric section (one which deals specifically with children) and ask them to check for testicular torsion. If I'm not sure, wait one hour and if it's still sore, go to the A&E. If the pain is much better after an hour, make an appointment to see my GP as soon as possible just to check things out.
- ☐ Ignore it - it's embarrassing to talk about testicles to adults, and the pain will probably go away after a while anyway.

4. Untreated testicular torsion can result in a testis having to be removed, but torsion is usually reversed without lasting damage if it's reported and treated quickly.

- ☐ True
- ☐ False

5. Testicular cancer is one of the most common cancers affecting men and almost always causes infertility

- ☐ True
- ☐ False

Quick Quiz ctd

6. Testicular cancer usually feels like a hard lump on the smooth part of the testis, but it can show up as a general swelling of the testis, the feeling that one testis has recently become bigger than the other, or even just a feeling that 'something isn't quite right' with the testis.

☐ True

☐ False

7. I should check my testes so I know how they feel when they are healthy and can pick up any changes. Ideally, this should be done.....

☐ Once every 5 years with the help of my GP. It takes a medically qualified person to check for lumps.

☐ Once every year on my birthday (so I don't forget).

☐ At least once a month. The easiest way to remember is for me to check whenever I bath or shower, as I am naked already and I have to feel them when I wash them anyway.



Testicular Health Education Quick Quiz - **ANSWERS FOR TEACHERS**

1. **False.**

In fact, torsion occurs when the testis twists as it hangs, so the blood vessels and sperm duct get wrapped around each other. The blood vessels can become compressed, which can prevent blood flow and damage the testis. If it is not untwisted in time, the testis may die.

2. **All of the options are correct.**

There does not have to be an obvious cause of torsion for torsion to occur.

3. **The second option is the ONLY correct answer.**

Doctors have found that leaving the twisted testicle untreated for more than 6 hours often leads to testis death, so don't ignore the pain or wait a day or two to see your doctor. If you're not sure how bad it is, wait an hour, and reassess - if in doubt and it's still sore, go get it checked out at an A&E. Also, tell an adult straight away, so they can make plans to take you to A&E after the hour is up, if necessary.

4. **True.**

Doctors are usually able to untwist the testis successfully without lasting damage if they can do so within around 6 hours from the start of the pain.

5. **False.**

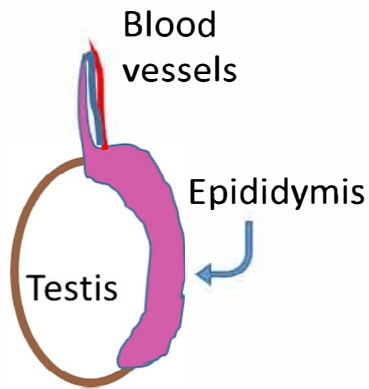
Testicular cancer is not that common. Around 1 in 12000 boys/men develop testicular cancer each year. Also, it usually only affects one testis, while the other one works just as well as before,. This means that most people who have had testicular cancer can still go on to have children later.

6. **True.**

This is why it is a good idea to check your testes regularly so you know how they feel when they're healthy. The epididymis is supposed to feel squidgy and uneven, for example. A lump in the testis itself feels different - a bit more firm.

7. **At least once a month.**

Monthly checking will ensure you catch a new lump early which means, if it is cancer, it won't have a chance to grow or spread. If you do a quick check each time you bath or shower, you'll know exactly how your testes feel normally and more easily pick up any changes which you can then ask your GP about. Lumps may not be cancer at all, but it's worth checking with your GP if you do find a new lump, as early diagnosis results in close to 100% successful treatment.



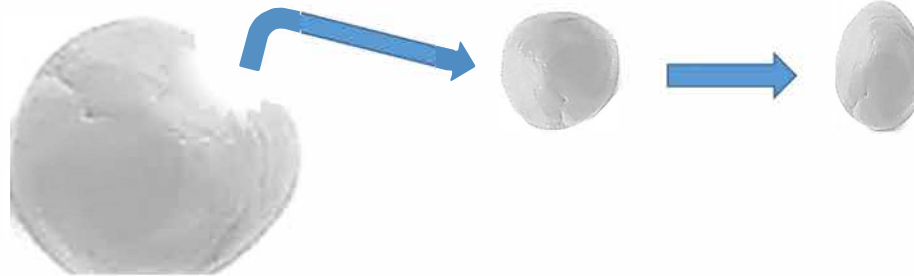
Making a model testis

HIGHGATE

NHS

NEL Urology Network

1. Take an egg-sized chunk of modelling clay and mould it into an egg shaped 'testis'.



2. Take a strip of modelling clay and wrap it round a piece of string so some string sticks out.
3. Firmly press the wrapped string along one side of the egg-shaped 'testis'. The clay-covered string represents the epididymis, where sperm mature.

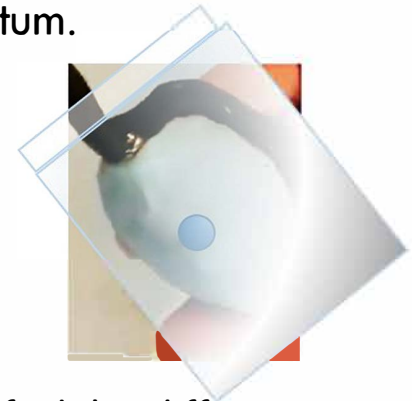


Now dangle the 'testis' on the string. See how it can twist and turn?

4. Press a hard bead/seed halfway into the 'testis' on the opposite side to the covered string.



5. Pop the 'testis' into 2 mini plastic bags to represent the scrotum.



Can you feel the difference between the 'testis' and the bead?