Men 6. ejaculation problems

- Premature ejaculation (PE) is when a man ejaculates or 'comes' sooner than he or his partner wishes on all or nearly all occasions. It usually happens before, or within about one minute of, vaginal penetration. But just thinking about something sexually stimulating can trigger ejaculation and sometimes it happens before any direct stimulation of the penis occurs. The important thing to remember is that if ejaculation occurs sooner than the man and/or his partner wishes and this is causing distress, bother, frustration and/or the avoidance of sexual intimacy, then it can be considered 'premature'. ***(Serefoglu EC, et al. An evidence-based unified definition of lifelong and acquired premature ejaculation: report of the second International Society for Sexual Medicine Ad Hoc Committee for the Definition of Premature Ejaculation. J Sex Med 2014 11(6): p. 1423-41.)***

- Estimates of how many men are affected by PE vary widely, ranging from just 5% of the population up to 31%. ***(European Association of Urology. Guidelines on male sexual dysfunction. 2015. Available at: http://uroweb.org/guideline/male-sexual-dysfunction/ (Accessed January 2016))***

- Research has shown that an anesthetic spray applied to the penis 5 minutes before intercourse helped men with lifelong PE last 6 times longer, with few side effects. It increased the time of intercourse from 0.6 minutes to 3.8 minutes, while the placebo treatment (that contained no active ingredient) only increased the time from 0.6 minutes to 1.1 minute. ***(Dinsmore WW, Wyllie MG. PSD502 improves ejaculatory latency, control and sexual satisfaction when applied topically 5 min before intercourse in men with premature ejaculation: results of a phase III, multicentre, double-blind, placebo-controlled study. BJU Int 2009;103(7):940-9)***.

- Some antidepressants are known to slow down ejaculation, but most of these are not approved for the treatment of PE in the UK. However, if your doctor thinks it may help your PE, he/she may prescribe one of these drugs, usually a selective serotonin-reuptake inhibitor (SSRI) or clomipramine. ***(European Association of Urology. Guidelines on male sexual dysfunction. 2015. Available at: http://uroweb.org/guideline/male-sexual-dysfunction/ (Accessed January 2016))***

- Dapoxetine (Priligy®) is the first drug treatment for PE to be licensed for use in the UK. It is a type of SSRI, but because it works much faster than those described above, it can be taken 'on demand' around 1 to 3 hours before sexual activity. It has been shown to significantly lengthen the time of intercourse.

- Dapoxetine is not generally recommended in men who are taking phosphodiesterase (pronounced phos- pho- di- es- ter- ase) inhibitors (PDE5i) such as Viagra®, because this combination may cause the blood pressure to drop.

- It should not be combined with recreational drugs or alcohol. In trials, very common side effects included dizziness, headache and nausea and common side effects

included anxiety, insomnia, strange dreams, tremor, blurred vision, tinnitus, erectile dysfunction and reduced libido.

(NICE advice (ESMN40). Premature ejaculation: Dapoxetine. May 2014. Available at: https://www.nice.org.uk/advice/esnm40/chapter/key-points-from-the-evidence (Accessed January 2016)) NHS Choices (online) Ejaculation problems -Treatment. Available at: http://www.nhs.uk/Conditions/Ejaculation-problems/Pages/Treatment.aspx (Accessed January 2016) A. Menarini Farmaceutica Internationale SRL. Dapoxetine SPC. 17 December 2013. Available at: https://www.medicines.org.uk/emc/medicine/28284 (Accessed February 2016)

- These may be physical (in the body), psychological (in the mind) or a mixture of both. Physical causes include severe diabetes, drug therapy and neurological problems, such as those caused by spinal cord injury, pelvic surgery, multiple sclerosis or alcoholism. ***(European Society for Sexual Medicine. The EFS and ESSM Syllabus of Clinical Sexology (2013). Medix Publishers, Amsterdam).***

- At the moment, there are no drug treatments approved for DE. ***(European Society for Sexual Medicine. The EFS and ESSM Syllabus of Clinical Sexology (2013). Medix Publishers, Amsterdam).***

Men 9. Erectile dysfunction

- Erectile dysfunction (ED) is when you are unable to get or keep an erection suitable for sexual intercourse or another chosen sexual activity. ***(Lue T et al. Summary of the recommendations on sexual dysfunctions in men. Journal of Sexual Medicine 2004;1(1):6-23.)***

- It is very common; half of men between the ages of 40 and 70 years will have it to some degree. ***(NHS choices (online). Erectile dysfunction (impotence). 23/09/14.Available at: http://www.nhs.uk/CONDITIONS/ERECTILE-DYSFUNCTION/Pages/Introduction.aspx (Accessed January 2016.)***

- This means ED can be an early warning sign of future heart problems, appearing some 3-5 years before a heart complaint. ***(Jackson G. Erectile dysfunction and cardiovascular disease. Arab J Urol 2013;11:212-216. Hodges LD, Kirby M, Solanki J, O'Donnell J, Brodie DA. The temporal relationship between erectile dysfunction and cardiovascular disease. Int J Clin Pract 2007;61:2019–25. Inman BA, Sauver JL, Jacobson DJ, McGree ME, Nehra A, Lieber MM, et al. A population-based, longitudinal study of erectile dysfunction and future coronary artery disease. Mayo Clin Proc 2009;84:108–13. Ponholzer A, Temml C, Obermayr R, Wehrberger C, Madersbacher S. Is erectile dysfunction an indicator for increased risk of coronary heart disease and stroke? Eur Urol 2005;48: 512–8),***

- If you have been suffering from ED for more than a few weeks, it is wise to see your doctor, because it may be a warning sign of other health problems. ***(NHS choices***

(online). Erectile dysfunction (impotence). 23/09/14. Available at: http://www.nhs.uk/CONDITIONS/ERECTILE-DYSFUNCTION/Pages/Introduction.aspx (Accessed January 2016.))

- Men whose ED is due to physical causes often experience a gradual onset of erectile problems, which usually occur with all sexual activities. Physical causes of ED include:
  - Vasculogenic conditions (which affect the blood flow to the penis) - including disease of the heart or blood vessels (cardiovascular disease (CVD), high blood pressure, high cholesterol and diabetes
  - Neurogenic conditions (which affect the nervous system) - including multiple sclerosis, Parkinson's disease, stroke, diabetes, spinal injury or disorder
  - Hormonal conditions (which affect the hormones) - including an overactive thyroid gland, an underactive thyroid gland, hypogonadism (low testosterone level), Cushing's syndrome (high cortisol level), a head or brain injury recently or in the past, subarachnoid haemorrhage or radiation to the head (may cause hormonal changes, particularly a low testosterone)
  - Anatomical conditions (which affect the structure of the penis) - including Peyronie's disease
  - Surgery and radiation therapy for bladder, prostate or rectal cancer
  - Injury to the penis
  - Side effect of prescribed drugs
  - Excessive alcohol consumption
  - Recreational drugs

(NHS choices (online). Erectile dysfunction (impotence). 23/09/14.Available at: http://www.nhs.uk/Conditions/Erectile-dysfunction/Pages/Causes.aspx (Accessed January 2016.) (European Society for Sexual Medicine. The EFS and ESSM Syllabus of Clinical Sexology (2013). Medix Publishers, Amsterdam).

- ED is also more likely to occur in people who smoke, are overweight and/or are not active enough.

- If you have ED and cycle for more than three hours a week, your doctor may recommend you try a period without cycling to see if this helps improve things. It is important to make sure you are sitting in the correct position with a properly fitted and comfortable seat.

(NHS choices (online). Erectile dysfunction (impotence). 23/09/14.Available at: http://www.nhs.uk/Conditions/Erectile-dysfunction/Pages/Causes.aspx (Accessed January 2016.)

- The current guidance on the use of testosterone replacement therapy in men recommends that that when they first see a doctor (GP or specialist) for ED and/or reduced libido (sex drive), they should have their testosterone measured in the morning on at least two occasions ***(British Society for Sexual Medicine. Guidelines on the management of sexual problems in men: the role of androgens. 2010. Available at: http://www.bssm.org.uk/ (Accessed January 2016))***

- Invicorp is another type of injection therapy used to treat ED. It contains two active ingredients (aviptadil and phentolamine mesilate); one increases blood flow to the penis to help you get an erection while the other helps trap the blood there to keep the erection. Invicorp may work well for men who have found little success with other ED treatments and some may find it less painful to use than alprostadil injections. ***(Dinsmore WW, Wyllie MG. Vasoactive intestinal polypeptide/phentolamine for intracavernosal injection in erectile dysfunction. BJU Int. 2008;102(8):933-7. Shah PJ, Dinsmore W, Oakes RA, et al. Injection therapy for the treatment of erectile dysfunction: a comparison between alprostadil and a combination of vasoactive intestinal polypeptide and phentolamine mesilate. Curr Med Res Opin. 2007 Oct;23(10):2577-83.)***

- Research has suggested that a small number of men with ED may benefit from exercises to strengthen the pelvic floor muscles. These lie underneath the bladder and back passage, and at the base of the penis. If your doctor thinks this approach may benefit you, they will refer you to a physiotherapist. ***(NHS choices (online). Erectile dysfunction (impotence). 23/09/14. Available at:*** http://www.nhs.uk/Conditions/Erectile-dysfunction/Pages/Treatment.aspx ***(Accessed January 2016.)***

Men 11. Testosterone

- This factsheet was based on:
  Kirby M. Low testosterone and the metabolic syndrome: a high risk combination. Trends in Urology & Mens Health. Sept/Oct 2015.

- Men are more likely to develop hypogonadism as they get older. ***(Wu FCW, Tajar A, Beynon JM, Pye SR, Silman AJ, Finn JD et al. Identification of late-onset hypogonadism in middle aged and elderly men. N Engl J Med 2010;363:123-35)***

- In the UK, it is thought to affect over 8% of men aged 50-79 years. ***(British Society for Sexual Medicine. (Guidelines on the management of sexual problems in men: the role of androgens. 2010. Available at: http://www.bssm.org.uk/ (Accessed January 2016).***

- Low testosterone levels increase a man's risk of developing disease of the blood vessels and heart and increase his risk of death. ***(Laughlin GA, Barrett-Connor E, Bergstrom J. Low serum testosterone and mortality in older men. J Clin Endocrinol Metab 2008;93(1):68-75).***

- Testosterone production is controlled by both the brain and the testes. ***Dandona P, Rosenberg MT. A practical guide to male hypogoadism in the primary care setting. Int J Clin Pract 2010;64(6):682-696***

- In younger men, testosterone deficiency usually results from a problem in one of these areas. From the age of about 30 years, testosterone levels start to drop naturally. However, the production of testosterone doesn't usually stop altogether some men

have higher levels than others as they age. ***(Shores MM, Matsumoto AM, Sloan KL, Kivlahan DR. Low serum testosterone and mortality in male veterans. Arch Intern Med 2006;166:1660-5. Feldman HA, Longcope C, Derby CA, Johannes CB, Araujo AB, Coviello AD et al. Age Trends in the Level of Serum Testosterone and Other Hormones in Middle-Aged Men: Longitudinal Results from the Massachusetts Male Aging Study. J Clin Endocrinol Metab 2002;87(2):589-98. In: Shores MM, Matsumoto AM, Sloan KL, Kivlahan DR. Low serum testosterone and mortality in male veterans. Arch Intern Med 2006;166:1660-5).***

- Older men are increased risk of developing hypogonadism if they are obese or have the metabolic syndrome, diabetes, chronic obstructive pulmonary disease (COPD), inflammatory arthritis or kidney disease. It is also more likely to occur if they have had androgen deprivation therapy for prostate cancer, taken opiate drugs for a long time, have prostate disease or drink too much alcohol. ***(British Society for Sexual Medicine. Guidelines on the management of sexual problems in men: the role of androgens. 2010. Available at: http://www.bssm.org.uk/ (Accessed January 2016))***

- Common symptoms of hypogonadism include erectile dysfunction (ED), low libido (sex drive), loss of night time erections, and depression. Some men may notice they are losing muscle mass, becoming weaker and/or getting fatter. Other symptoms include hair loss from the face, armpit or pubic region, difficulty sleeping and hot flushes. ***(Laughlin GA, Barrett-Connor E, Bergstrom J. Low serum testosterone and mortality in older men. J Clin Endocrinol Metab 2008;93(1):68-75. British Society for Sexual Medicine. Guidelines on the management of sexual problems in men: the role of androgens. 2010. Available at: http://www.bssm.org.uk/ (Accessed January 2016). Grober ED. Testosterone deficiency and replacement: Myths and realities. CUAJ 2014;8(7-8 Suppl 5):S145-7.)***

- The lower your testosterone levels, the more likely you are to get symptoms. ***(Wu FCW, Tajar A, Beynon JM, Pye SR, Silman AJ, Finn JD et al. Identification of late-onset hypogonadism in middle aged and elderly men. N Engl J Med 2010;363:123-35.***

- To diagnose hypogonadism that requires treatment, your doctor will consider your symptoms AND your testosterone levels. To measure your testosterone level you will need a blood test which is done in the morning and usually repeated on another day. ***(British Society for Sexual Medicine. Guidelines on the management of sexual problems in men: the role of androgens. 2010. Available at: http://www.bssm.org.uk/ (Accessed January 2016).)***

- Hypogonadism may not be diagnosed if men ignore their symptoms or put them down to other causes such as aging. ***(American Association of Clinical Endocrinologists. Medical guidelines for clinical practice for the evaluation and treatment of hypogonadism in adult male patients – 2002 update. Endocr Pract 2002; 8: 440–56).***

- TRT can provide a variety of benefits in men with hypogonadism. These include improvements in CVD, mood, libido and sexual function, as well a reduction in body fat and an increase in muscle mass. Such benefits are also likely to improve quality of life.

(Bassil N, Alkaade S, Morely JE. The benefits and risks of testosterone replacement therapy: a review. Ther Clin Risk Man 2009;5:427-448).

- If you have sexual dysfunction or 'impotence' TRT may have the added bonus of improving the effects of drugs like Viagra®. This may be particularly important in men who have type 2 diabetes, as many of them do not get good results with these drugs.

- TRT may not be suitable for you if you have prostate cancer.

- Once a man starts TRT he should see his doctor for regular check ups to make sure it is working well and not causing any problems.

(British Society for Sexual Medicine. Guidelines on the management of sexual problems in men: the role of androgens. 2010. Available at: http://www.bssm.org.uk/ (Accessed January 2016).)

Women 8. Women's sexual problems

- They are estimated to affect around one-third of young and middle-aged women and about half of older women. ***(ISSM (online) How many women have sexual problems. Available at: http://www.issm.info/education-for-all/sexual-health-qa/how-many-women-have-sexual-problems (Accessed March 2016)***

- A lack of sexual desire and a lack of sexual arousal often occur together. And treatment of one often improves the other. ***(European Society for Sexual Medicine. The EFS and ESSM Syllabus of Clinical Sexology (2013). Medix Publishers, Amsterdam).***

- These include never having an orgasm, delayed or infrequent orgasms, and a reduction in the strength of orgasmic sensations. While some women don't need to have an orgasm to enjoy sex, this may be a real problem for others and their partners. ***(European Society for Sexual Medicine. The EFS and ESSM Syllabus of Clinical Sexology (2013). Medix Publishers, Amsterdam. (BMJ Best Practice. Sexual dysfunction in women (2015). Available at: http://bestpractice.bmj.com/best-practice/monograph/352.html (Accessed January 2016) (NHS Choices (online). Female sexual problems. Available at: http://www.nhs.uk/Livewell/Goodsex/Pages/Femalesexualdysfunction.aspx (Accessed January 2016)***

- Vaginal moisturisers (e.g. Replens™ Longer Lasting Vaginal Moisturiser) help retain moisture in the vagina. These can be applied regularly and at least 2 hours before sex. ***(www.replens.com)***

- Flibanserin (Addyi™) is a new drug for treating low sexual desire. It has to be taken every day and should not be combined with alcohol. It was approved for use in the United States in 2015 but has not been approved for use here yet. ***(FDA News release. FDA approves first treatment for sexual desire disorder (online). August 18, 2015.***

Available at: http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm458734.htm (Accessed January 2015)

- Treating other conditions such as diabetes or depression may also help improve symptoms of sexual dysfunction. ***(NHS Choices (online). Female sexual problems. Available at: http://www.nhs.uk/Livewell/Goodsex/Pages/Femalesexualdysfunction.aspx (Accessed January 2016***

- Tibolone (Livial®) is often classed as a type of hormone replacement therapy (HRT). It is a man-made steroid with similar effects to the female hormones oestrogen and progesterone as well as testosterone. It can improve menopausal symptoms such as hot flushes ***(Merck, Sharp & Dohme Limited. Livial 2.5mg Summary of Product Characteristics. March 2009. Available at: https://www.medicines.org.uk/emc/medicine/8552 (Accessed January 2016)*** and can improve lack of libido (sex drive). **(Davis SR. The effects of tibolone on mood and libido. Menopause 2002;9(3):162-70.)**

Men and Women X. the Mediterranean diet

- A traditional Mediterranean diet includes large amounts of fruit, vegetables, nuts, whole grains, legumes (beans, peas and lentils) and olive oil. It includes moderate amounts of fish and alcohol (wine with meals), and low amounts of dairy products, meat and sweets. **(Willett WC et al. Mediterranean diet pyramid: a cultural model for healthy eating. Am J Clin Nutr 1995;61(6):1402-6S.)**

- Between 1993 and 2013, the number of obese women increased from 16% to 25% and the number of obese men increased from 13% to 24%. In 2012, 19% of men and 26% of women were classed as inactive. And between 2009 and 2012 overall purchases of fruit and vegetables decreased. ***(Health & Statistics Information Centre. Statistics on Obesity, Physical Activity and Diet – England, 2014 [NS]. Available at: http://www.hscic.gov.uk/catalogue/PUB13648/Obes-phys-acti-diet-eng-2014-rep.pdf (Accessed January 2016))***

- In 2014, CVD was the second biggest cause of death in the UK, causing 27% of all deaths, a total of around 155,000. These were mainly from heart disease (45%) and stroke (25%). Heart disease remains the biggest single cause of death in the UK. ***(British Heart Foundation. CVD statistics 2014. Available at: https://www.bhf.org.uk/research/heart-statistics (Accessed January 2016))***

- Studies have shown that consistently eating a Mediterranean diet can:
  - Reduce the risk of death from CVD, cancer and other causes
  - Reduce the risk of Parkinson's disease and Alzheimer's disease
  - Increase the likelihood of healthy aging

(Trichopoulou A, Costacou T, Bamia C, Trichopoulos D. Adherence to a Mediterranean diet and survival in a Greek population. N Engl J Med 2003;348:2599-608. Fung TT, Rexrode KM, Mantzoros CS, Manson JE, Willett WC, Hu FB. Mediterranean diet and incidence of and mortality from coronary heart disease and stroke in women. Circulation 2009;119:1093-100. Lopez-Garcia E, Rodriguez-Artalejo F, Li TY, Fung TT, Li S, Willett WC, et al. The Mediterranean-style dietary pattern and mortality among men and women with cardiovascular disease. Am J Clin Nutr 2014;99:172-80. Estruch R, Ros E, Salas-Salvado J, Covas MI, Corella D, Aros F, et al. Primary prevention of cardiovascular disease with a Mediterranean diet. N Engl J Med 2013;368:1279-90. Samieri C, Sun Q, Townsend MK, Chiuve SE, Okereke OI, Willett WC, et al. The association between dietary patterns at midlife and health in aging: an observational study. Ann Intern Med 2013;159:584-91 Crous-Bou M , Fung TT, Prescott J et al. Mediterranean diet and telomere length in Nurses' Health study: population based cohort study. BMJ 2014;349:g6674. .Sofi F, Cesari F, Abbate R et al. Adherence to Mediterranean diet and health status: meta-analysis. BMJ 2008;337:a1344.)

- This diet includes foods that contain healthier, unsaturated fats, such as olive oil, nuts and oily fish. These fats can help reduce the risk of CVD by lowering the bad fats (cholesterol and triglycerides) in the body.

- You should eat less saturated fat, because this can increase the risk of CVD. Saturated fats are found mainly in animal products (fatty meats, butter, cream and cheese), biscuits, cakes and pastries, but coconut and palm oils also contain them.

- Other risk factors for CVD include eating too much salt and sugar, being overweight, not taking enough physical activity and smoking.

NHS Choices (online). Live well. Fat: The facts. 30/04/15. Available at: http://www.nhs.uk/Livewell/Goodfood/Pages/Fat.aspx (Accessed January 2016).

- Government guidelines recommend that men and women do not regularly drink more than 14 units of alcohol per week ***(Department of Health. Open consultation. Health risks from alcohol. New guidelines. 08 January 2016. Available at: https://www.gov.uk/government/consultations/health-risks-from-alcohol-new-guidelines (Accessed January 2016))***

Men and women X. Body Mass Index (BMI)

- The number of people who are overweight or obese is increasing rapidly in many parts of the world. ***(WHO. Global database on Body Mass Index (online). 28/01/16. Available at: http://apps.who.int/bmi/index.jsp (Accessed January 2016).)***

- In the UK in 2012, 42% of men and 32% of women were overweight and 24% of men and 25% of women were obese. ***(Health & Statistics Information Centre. Statistics on Obesity, Physical Activity and Diet – England, 2014 [NS]. Available at:***

http://www.hscic.gov.uk/catalogue/PUB13648/Obes-phys-acti-diet-eng-2014-rep.pdf (Accessed January 2016).)

- Body Mass Index (BMI) uses your weight and height to determine if you are within the healthy weight range, underweight, overweight or obese.

- The standard BMI ranges for weight categories in adults are:

BMI	Weight category
Below 18.5	Underweight
18.5-24.9	Normal weight
25.0-29.9	Overweight
30.0 and above	Obese

(Department of Health and Human Services Centers For Disease Control and Prevention. Body Mass Index: Considerations for Practitioners (online). Available at: http://www.cdc.gov/obesity/downloads/bmiforpactitioners.pdf (Accessed January 2016).)

- Having a low BMI and being underweight may be a sign that you are not eating enough or you have an underlying illness ***(NHS choices (online) What's your BMI. 30/12/15. Available at: http://www.nhs.uk/Livewell/loseweight/Pages/BodyMassIndex.aspx (Accessed January 2016.))***

- People with a BMI above the normal (healthy) range are more likely to suffer obesity-related health problems such as diseases of the heart and blood vessels (cardiovascular disease (CVD)), type 2 diabetes and certain cancers. And CVD, type 2 diabetes, and certain types of cancer and their treatment, can all increase your risk of sexual problems.

(Department of Health and Human Services Centres For Disease Control and Prevention. Body Mass Index: Considerations for Practitioners (online). Available at: http://www.cdc.gov/obesity/downloads/bmiforpactitioners.pdf (Accessed January 2016). NHS choices (online) What's your BMI. 30/12/15. Available at: http://www.nhs.uk/Livewell/loseweight/Pages/BodyMassIndex.aspx (Accessed January 2016) (WHO. Global database on Body Mass Index (online). 28/01/16. Available at: http://apps.who.int/bmi/index.jsp (Accessed January 2016).)

- BMI can tell you if you weigh too much weight, but it cannot tell you if this is due to too much fat. It does not distinguish between excess fat, muscle or bone mass, and it cannot provide information on how fat is distributed within the body. It also does not account for other factors such as age, sex, ethnicity and muscle mass. ***(Department of Health and Human Services Centers for Disease Control and Prevention. Body Mass Index: Considerations for Practitioners (online). Available at: http://www.cdc.gov/obesity/downloads/bmiforpactitioners.pdf (Accessed January 2016).) NHS choices (online) What's your BMI. 30/12/15. Available at:***

***http://www.nhs.uk/Livewell/loseweight/Pages/BodyMassIndex.aspx* (Accessed January 2016).)**

For this reason it may be less reliable in certain groups of people, such as:

- Older people who lose muscle with aging - they may fall in the normal (healthy) weight range even though they are carrying too much fat
- Muscular people or highly trained athletes who have increased muscle mass - they may be classed as overweight or obese even though they have little body fat ***(NHS choices (online) What's your BMI. 30/12/15. Available at: http://www.nhs.uk/Livewell/loseweight/Pages/BodyMassIndex.aspx (Accessed January 2016).)***

- So, BMI is best used as a 'screening tool' to identify people who are overweight or obese. Others factors such as how much fat they have, how this is distributed within the body, their genetics and fitness will all provide more information on their risk of disease. ***(Department of Health and Human Services Centers for Disease Control and Prevention. Body Mass Index: Considerations for Practitioners (online). Available at: http://www.cdc.gov/obesity/downloads/bmiforpactitioners.pdf (Accessed January 2016).)***

- Having too much of it puts you at increased risk of CVD, type 2 diabetes and cancer. ***(NHS choices (online) What's your BMI. 30/12/15. Available at: http://www.nhs.uk/Livewell/loseweight/Pages/BodyMassIndex.aspx (Accessed January 2016) World Cancer Research Fund/American Institute for Cancer Research. Food, nutrition, physical activity and the prevention of cancer: a global perspective. Washington DC: AICR, 2007. Available at: http://wcrf.org/int/research-we-fund/continuous-update-project-cup/second-expert-report (Accessed January 2016).)***

- Even if your BMI is in the healthy (normal) range, you can still have excess tummy fat that increases your risk of these diseases. ***(NHS choices (online) What's your BMI. 30/12/15. Available at: http://www.nhs.uk/Livewell/loseweight/Pages/BodyMassIndex.aspx (Accessed January 2016).)***

How do you do it?

- Feel for the top of your hips and for the bottom of your ribs
- Wrap a tape measure around you waist, in the middle of these two points
- Breathe out naturally, then take the measurement

(NHS choices (online) What's your BMI. 30/12/15. Available at: http://www.nhs.uk/Livewell/loseweight/Pages/BodyMassIndex.aspx (Accessed January 2016).)

Country or ethnic group	Waist circumference	What it means	What you should do
Europid	• 94cm or more and you are a man	You have	Try to lose

(Caucasian/white skin), Eastern Mediterranean, Middle-East (Arab), Sub-Saharan	or • 80cm or more and you are a woman	abdominal obesity	weight
South Asian, Chinese, Japanese, Ethic South and Central American	• 90cm or more and you are a man or • 80cm or more and you are a woman	You have abdominal obesity	Try to lose weight
Any	• 102cm or more and you are a man or • 88cm or more and you are a woman	You have significant abdominal obesity and are at very high risk	See your GP

(The International Diabetes Federation. The IDF consensus worldwide definition of the metabolic syndrome. Available at: http://www.idf.org/webdata/docs/MetSyndrome_FINAL.pdf (Accessed January 2016) NHS choices (online) What's your BMI. 30/12/15. Available at: http://www.nhs.uk/Livewell/loseweight/Pages/BodyMassIndex.aspx (Accessed January 2016).

- Losing weight will reduce your risk of obesity-related diseases. The best way to lose weight is through diet and exercise. Medication may be required in some cases. ***(NHS choices (online) What's your BMI. 30/12/15. Available at: http://www.nhs.uk/Livewell/loseweight/Pages/BodyMassIndex.aspx (Accessed January 2016)***