

NUTRITION & DIET

A GUIDE FOR THE TURNER WOMAN

SO WHY IS DIET IMPORTANT?

Being overweight is a common problem for women with Turners Syndrome. Overweight can increase the risk of developing diabetes mellitus, and high blood pressure, diet and exercise will make these conditions easier to control. Women with Turners Syndrome are also at increased risk of developing osteoporosis. By ensuring that your diet is rich in those nutrients which are vital to bone strength, and by avoiding those which may increase bone loss, the likelihood of osteoporosis may be reduced.

IS IT PARTICULARLY DIFFICULT FOR A TURNER WOMAN TO LOSE WEIGHT?

Some of the problem of weight is to do with how much energy is burnt up everyday. A Turner woman burns fewer calories than other women do but not because of a problem with 'metabolism' – it is all a matter of height.

If we choose two women of similar build, one with Turners and one without, we can estimate the daily energy (calorie) requirements needed in each case. A Turner woman who is 5' 0" (1.52 m) tall and who weighs 58 kg will require around 1325 kcal at rest and about 1850 kcal for normal active life. A woman of height 5' 6" (1.68 m) and weight 71 kg will require around 1450 kcal at rest and about 2050 kcal for everyday life. This rough calculation illustrates that for the same build, a shorter woman will need to eat less than a taller woman. The difference here of around 200 kcal per day translates into 3 biscuits or a small slice of cake each day, or around 4 rounds of sandwiches each week!

In order to lose half a kilogram (1 lb) there has to be an energy (calorie) deficit of around 3000 kcal. This means that if each day there is a gap (difference) of 500 kcal between energy consumed in foods and drinks and energy burnt up then 0.5 kg (1 lb) will be lost each week. To lose 1 kg (2 lb) per week there has to be a gap of 1000 kcal each day. In terms of food, 1000 kcal translates to around 3 rounds of sandwiches or 15 digestive biscuits or a typical roast dinner and pudding. The problem with losing weight for a Turner woman is that a shorter woman will have to eat fewer calories than a taller woman to achieve the gap in calories required to lose weight.

DO I HAVE TO EXERCISE?

You may have been put off sport at school, but physical activity and non-competitive exercise is important for both weight control and bone-health. Activity also helps to lower the blood sugar level in diabetes. But... you do not have to rush out and start playing squash, hockey or polo or running 50 miles a week! Regular exercise at least 3 times each week for 30-60 minutes is the aim.

Brisk walking, swimming and cycling are excellent: the aim is to raise the pulse to between 60-70% of maximum for most of the exercise. 60% of maximum is the level suggested for those beginning an exercise programme, 70% is more suitable for those already in a fitness programme. Maximum heart rate can be estimated by subtracting your age from 220. So a 30 year old woman would have a maximum heart rate of 190 beats per minute and should aim for a heart rate (pulse) of 115 per minute when exercising.

Remember to start gently, warm up and warm down (ie increase and decrease heart rate steadily). If you have any particular health problems check with your doctor before beginning an exercise regime. Otherwise, if you haven't been active for some time - start gently and build up slowly: try 15 minutes of moderate activity twice a day to start with and build up to half an hour in one go. Choose activities you enjoy - you are less likely to give up!

CAN ALTERING MY DIET PREVENT DIABETES?

The type of diabetes that most often occurs in Turner women comes on later in life. Diabetes occurs when there is a reduced amount of insulin present - insulin is the substance which regulates the blood sugar level. When there is excess fat in the body insulin does not work so well - there is reduced insulin sensitivity. Exercise and weight loss increase insulin sensitivity enabling the insulin which is made to work better.

HOW IS DIET IMPORTANT IN OSTEOPOROSIS?

Bone contains a number of minerals of which calcium is the most abundant. Bone is constantly being remodelled - broken down and remade. In childhood and up until the age of around 30, the density of bone is increasing, after this bone density is fairly steady until the age of the menopause, after which when it falls gradually. In osteoporosis, bone is broken down too fast. A diet lacking in calcium may worsen this problem. A diet rich in minerals and vitamins is the best choice for healthy bones. More is not always better though - the body is only able to absorb a certain amount of calcium from the gut, so it is not usually necessary to take large doses of supplementary calcium. Bone loss may be worsened by smoking, taking large quantities of alcohol, caffeine, and salt. Regular weight bearing exercise will help keep bones healthy.

HOW DOES HRT AFFECT WEIGHT?

Hormone replacement therapy (HRT) can occasionally cause an increase in weight but it is nearly always possible to find a suitable preparation with medical advice. For instance, some women find it easier to lose weight when using oestrogen patches rather than HRT tablets. HRT will affect the distribution of fat on the body, causing less to be deposited around the abdomen (tummy) and more on the hips and bust - a change from the 'apple' shape to the 'pear' shape. This change in shape is healthy for women.

SO WHAT SORT OF MEALS SHOULD I BE EATING?

A healthy diet should be low in sugar and fat, but high in fibre. Fortunately, the types of food which are rich in nutrients tend to be low in sugar, and many are in fat. So it is possible to eat meals which are good for weight and bones but keep blood sugar levels stable.

Eat plenty of these healthy foods *fresh vegetables, fruit, salad, fish, chicken, bread, potatoes, pasta, rice, low fat dairy products, beans & lentils*. Fluid intake should be between 1.5 and 3 litres daily. Here is an example of a healthy diet:

BREAKFAST	Fruit or small glass fruit juice AND Wholegrain cereal with low fat milk OR 1-2 slices bread with small amount spreads Tea or coffee with low fat milk
MID-MORNING	Tea or Coffee/low sugar drink/water Fruit if wanted
LUNCH	Portion lean meat/fish/eggs/cheese/ pulses (beans & lentils) 2-4 slices bread OR portion potato/ rice/ pasta Large portion vegetables/salad vegetables Fruit or yoghurt
AFTERNOON	Tea or coffee/low sugar drink/water Fruit or 2 plain biscuits if wanted
EVENING MEAL	same as lunch
BEDTIME	Milky drink made with low fat milk.

If the meal pattern above is used for everyday eating, a portion of cake, chocolate or crisps may be included from time to time. It is the day to day pattern that is important, not the (occasional!) celebration!

EATING DISORDERS

Eating disorders such as anorexia nervosa and bulimia nervosa are common in all young women, including those with Turner's syndrome. There is no foolproof way of avoiding eating disorders, but there ARE ways of reducing the risk of developing one. Magazines, TV and other people all talk about the way we SHOULD look - but many of these images are not realistic. It is better to be as healthy as you can - both physically and mentally - than strive to be the shape of a size 6 model (who may herself have an eating disorder!). Work on eating healthily - but don't let diet rule your life. If you find yourself focussing too much on your weight, shape or food intake, ask for help from your GP, specialist, or contact the Eating Disorder's Association for further information (your library or phone book will have phone numbers).

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