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DIABETES WELLNESS NEWS

Novel/newer treatments for type 2 diabetes and obesity

INSIDE:

By John PH Wilding, Professor of Medicine, Head of Department of Obesity and Endocrinology, University of Liverpool & Honorary Consultant Aintree University Hospitals NHS Foundation Trust.

Introduction

Of all the medical conditions that may be caused or exacerbated by an excess of body fat, type 2 diabetes is perhaps the best known and hardest to treat. We know for certain that being overweight or obese, particularly if the weight tends to build up around the abdomen and internal organs such as the liver, is associated with a higher risk of developing diabetes, and that even small amounts of weight loss (about 5% of body weight, which is less than 5kg for most people) can delay or prevent the onset of diabetes in those at greatest risk. Even for those with established diabetes, weight loss can make a big difference to the control of blood glucose, and can help control high blood pressure and abnormal blood fats - and thus may reduce the future risk of complications such as heart attacks and strokes. For this reason, lifestyle changes that can help people get closer to a healthy weight are an essential part of the management of type 2 diabetes. For many people however, lifestyle changes are not enough to control the progression of the condition and drug treatment and / or insulin is also needed. Unfortunately many of the well established drug treatments, as well as insulin can make it harder for people to lose weight, and may often contribute to further weight gain. This article will explore why this is the case, and discuss potential new strategies that can be used to help avoid weight gain during diabetes treatment, including newer and future medications that may help control blood glucose with less risk of weight gain.

Why do some diabetes treatments cause weight gain?

It may seem surprising that many of the most established treatments for type 2 diabetes, including sulfonylureas, pioglitazone and insulin itself are all associated with an increase in weight, despite being effective at treating the high blood sugar. This is probably for two main reasons. The first is that if blood glucose is not well controlled, glucose may spill into the urine and thus energy is lost by the body that would otherwise be converted into fat tissue. When poorly controlled diabetes comes under control, glucose is no longer lost in the urine, and that extra sugar is retained by the body and if not used up by exercise, will be converted to fat, contributing to the gain in weight. The second reason is that insulin itself promotes deposition of fat, as its usual function is to help the body store many of the nutrients (including sugars, fat and protein) that are taken in after a meal, and higher amounts of insulin are often needed to control blood sugar in people with diabetes, than they would otherwise need. Drugs that stimulate insulin secretion such as sulfonylureas (for example gliclazide or glipizide), or glinides (for example repaglinide) probably cause weight gain for the same `reasons. Sometimes insulin and sulfonylureas can cause low blood sugar ('hypos') which can also stimulate appetite. Pioglitazone sensitises the body to insulin and also has powerful effects to promote laying down of fat tissue particularly under the skin, so can also contribute to an increase in body weight, although paradoxically it can help remove fat from the most harmful places such as the liver, so this is not necessarily all bad news.

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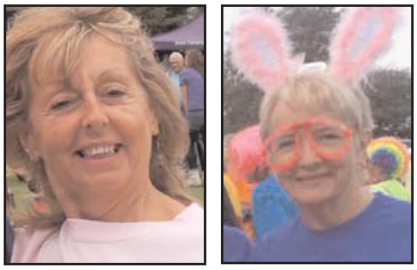
Colourthon raises cash for DRWF!

Elaine Bowyer and Lyn Russo recently completed the 2012 Southend Round Table Colourthon and chose DRWF as their charity of choice.

The ladies took part in the Moonlight Colourthon, a half marathon walk around Southend-on-Sea, through the evening and into the early hours of the next morning.

Elaine Bowyer explained: "I chose DRWF as my chosen charity as one of my nieces was diagnosed with type 1 diabetes at the age of 14. I have seen how she has learned to cope with the condition and the constraints it puts on her life. I would love to think one day youngsters would not have to go through what she has. She is now 21 and has been through all the stages of not looking after herself etc, but now realises she has this condition for life and has an extremely positive outlook on life."



Fundraisers Lyn Russo and Elaine Bowyer

Lyn Russo has a daughter who was diagnosed with type 1 diabetes aged eight, she is now 25. Lyn said: "It would be wonderful to find a cure."

We thank Colourthon for including DRWF as a registered charity and wish them every success with the event in the future.

Diabetes Wellness Day South

DRWF and the specialist diabetes teams from Hampshire NHS and Portsmouth University worked together again in 2012 to host another popular and successful Diabetes Wellness Day.

The event, attended by 120 people, took place on Saturday, 23rd June at the Novotel Hotel in Southampton and was aimed at people living with diabetes from across the South.

The programme was changed this year to include some new and fresh topics and delegates had the opportunity to listen to a variety of talks on different aspects of diabetes delivered by local diabetes healthcare professionals.

This year, Consultant Physician Dr. Mayank Patel from Southampton General Hospital started the day by presenting a talk on the different types of diabetes; Lead Diabetes Specialist Dietitian Sarah Woodman from the Royal South Hants Hospital spoke about carbohydrate awareness; Alan Woodman, Specialist in Periodontics from the University of Portsmouth Dental Academy talked about diabetes and periodontal disease and exercise instructor Mark Sillett spoke about keeping fit with Nordic walking. A small breakout session for young people with type 1 diabetes also took place and the day was concluded with an 'Ask the Panel' question time session.

The exhibition area was vibrant and delegates had the chance to visit and speak with a variety of representatives from the different diagnostic companies, charities and local organisations about the latest blood-glucose monitors and diabetes related products and services as well as talk to experts from the local diabetes healthcare teams, the retinal screening service, the diabetic podiatry service and many other support groups.

Jan Mitchell, Lead Nurse, Diabetes from the Royal South Hants Hospital and Event Co-ordinator Lee Calladine from DRWF commented: "We are incredibly pleased with the success of this year's Diabetes Wellness Day South. The dedication of everyone involved made it possible for us to put on this unique educational event for people with diabetes. Working together we are able to combine our resources and knowledge and provide an extra level of support, awareness and learning to help people understand and manage their diabetes."

News update

New guidance promotes identifying type 2 diabetes

New guidance has been published by NICE (National Institute for Health and Clinical Excellence) on identifying people at high risk of developing type 2 diabetes.

The new report highlights the importance of providing clinical and cost effective interventions to help reduce the risk of, or delay the onset of, the condition.

Professor Mike Kelly, Director of the Centre for Public Health Excellence at NICE, said: "Almost three million people are currently affected by diabetes and it is likely to affect many more in the future. Our new guidance includes some large-scale recommendations, such as the setting up of a new accreditation body to oversee effective practice in type 2 diabetes prevention. We also want health and wellbeing boards and public health commissioners to work with clinical commissioning groups to ensure that type 2 diabetes prevention is central to their health improvement strategies.

"This guidance will help people to identify their own personal risk and highlights that by losing weight, being more active and improving their diet, they can prevent or delay type 2 diabetes."

The new NICE guidance outlines the best ways of identifying people at high risk of developing type 2 diabetes, encouraging them to take steps to reduce their risk and maintain a healthier lifestyle. Consistent good quality evidence shows that individual risk can be reduced by nearly 60%.

The recommendations can be used alongside the NHS Health Check programme, the national vascular risk assessment and management programme for people aged 40-74 years.

Health and community services, workplaces, job centres, community pharmacies, faith centres, libraries and shops are encouraged to offer risk assessments so that everyone can understand their level of risk and get advice about reducing it.

More information: The guidance is available on the NICE website at: **http://nice.org.uk/PH38**

Diabetes risk for South Asians due to high blood glucose

A new study into diabetes at the University of Leicester has found that South Asians (people of Indian, Pakistani, Bangladeshi and Sri Lankan origin) have higher levels of blood glucose than white Europeans independent of risk factors that influence glucose levels.

The study of 4,688 white Europeans and 1,352 South Asians was led by Dr Samiul A Mostafa of the University of Leicester, Department of Cardiovascular Sciences and was published in Diabetes Care, a journal of the American Diabetes Association.

The research discovered that South Asians had higher levels of three measures of blood glucose: HbA1c (a measure of blood glucose over three months), fasting plasma glucose and two-hour plasma glucose which which may all be used for diagnosis of type 2 diabetes. Importantly, these higher levels of glucose markers in South Asians were not accounted for by differences in risk factors that influence diabetes, suggesting they were independently higher.

Dr Mostafa, a Clinical Research Fellow in Diabetes and Endocrinology based at Leicester Diabetes Centre, said: "We know type 2 diabetes is more common in South Asians compared to Europeans and is diagnosed at an earlier age. We are trying to explain reasons why this occurs beyond the well known risk factors of diet and physical activity.

"Our study suggests the main measures of glucose used in diagnosis of type 2 diabetes are all higher in South Asians independent of risk factors which cause diabetes such as obesity, blood pressure, smoking and gender. This may explain why diabetes diagnosis is higher in South Asians but more research is required. The findings suggest that South Asians should be monitored more closely for type 2 diabetes."

News in brief

Say No to Hypos website launched

A new educational website has been launched to encourage healthcare professionals to talk openly with people with type 2 diabetes about the dangers of hypoglycaemia as part of a dedicated campaign: 'Say No To Hypos'.

The 'Say No To Hypos' campaign is a collaboration between MSD Diabetes and global online diabetes community, Diabetes.co.uk and aims to encourage better management of hypoglycaemia (or 'hypos') in people with diabetes and to reduce the number of people affected by the condition.

Hypoglycaemia can be prevented with treatment and timely management and the campaign also encourages people with diabetes to have open conversations with their care team about their hypos in order to identify potential prevention and treatment strategies.

More information: **www.saynotohypos.co.uk**.

Diabetes event at Warwick

Warwickshire InStitute for Diabetes, Endocrinology and Metabolism (WISDEM) and Warwick Medical School Annual Clinical Symposium is to be held on Thursday, 27th September at Warwick Arts Centre, The University of Warwick, Coventry, CV4 7AL.

The title of the event is Tackling Grand Challenges in Diabetes 2012: High Quality, Cost-Effective Specialist Diabetes Care in the Community.

Confirmed speakers include: the Jeff Goulder Memorial Lecture, Professor Andrew Boulton (President, European Association for Study of Diabetes & Professor of Medicine, University of Manchester), Dr Roger Gadsby MBE (Associate Clinical Professor, Warwick Medical School), Jill Hill (Nurse Consultant, East Birmingham Community Diabetes Care), Dr Gillian Hawthorne (Consultant Diabetologist, Newcastle upon Tyne, NHS Hospital NHS Foundation Trust) and Dr Wasim Hanif (Consultant Physician & Honorary Senior Lecturer, University of Birmingham).

To book your place visit **www.warwick.ac.uk/go/wisdem**

10 ways to drin

By Azmina Govindji, RD MBDA Registered Dietitian and Nutritionist and member of the DRWF Editorial Advisory Board. Azmina's quarterly column gives dietary advice that is appropriate to people with diabetes and their families and inspired by her repertoire of simple, healthy recipes. This month... fluid.

When we think about a balanced diet, fluid is often something that gets missed off the list. But making sure you're drinking enough water and other important fluids is an essential part of your daily routine, especially in hot weather.

Why do you need fluid?

Around 60 per cent (nearly two thirds) of your body - even more for young children - is made up of water. While you can survive for weeks without food, you can only last a matter of days without water as it has so many essential roles.

As part of blood, it transports nutrients and oxygen to all cells and takes away waste. It is vital for flushing out the body's waste products. It helps to cushion organs and joints and provides a moist environment for your body's cells and enzymes (including digestive enzymes) to function properly.

Water is continuously lost when you sweat and breathe (to help regulate your body temperature), as well as in urine and bowel movements. This means you lose more fluid when the weather is hot, or when you are exercising (even when the weather is cold), as you sweat more to keep the body cool.

How much do you need?

Just like food, it's all about balance: too little isn't good and there's no need to go overboard either. Note that drinking more fluid than your body can process can lead to a low amount of sodium in the blood (a condition called hyponatremia), which can be potentially serious. It can occur when too much water is drunk over a very short period of time.

The Food Standards Agency recommends that you drink six to eight alcohol-free drinks (around 200ml each), so a total of 1.2-1.5 litres over the day, but we all have different needs. The more you weigh the more fluid you may need. If it is hot, you sweat more and will need to drink more to replace the lost fluid. If exercising, you will sweat a lot more.

The best way to check that you are drinking enough to replace the water you naturally lose is to note the colour of your urine. If it is plentiful and a light straw colour that's good; if it is dark and in small quantities, then you need to drink more.

What kind of fluid should you drink?

You don't just need to drink water - other drinks can count too, as they are mostly water. Some also supply vital nutrients. Always check nutrition labels to ensure you aren't downing lots of unwanted calories, caffeine (e.g. in cola and 'energy' drinks) and sugar along with your water.

Remember that sugary drinks (including unsweetened fresh fruit juice) will be quickly absorbed and hence can make your blood glucose go up quickly. If you drink fruit juice with a meal which has a low glycaemic effect (such as pasta at lunch or porridge at breakfast), this will help to slow down the rise in blood glucose. Note that some flavoured waters can contain sugar, so do compare labels and go for sugar-free options.

Simple and natural low fat milk is a great choice: it's about 90 per cent water, tooth-friendly, and calcium and nutrient-rich.

If you are exercising, you may be tempted to go for a sports drink. Unless you exercise intensively for a long period of time, you really don't need sports drinks and they can make your blood glucose rise too high. It's best to top up your fluid levels with water or low calorie drinks. If you do use a sports drink, it is recommended that you choose drinks that are isotonic, as they have a good combination of carbohydrates, potassium and sodium.

Remember, alcohol is a diuretic (it takes fluid away from the body), so it isn't a good source of fluid. It can also lower blood glucose levels, which can increase your risks of having a hypo.

Often when you think you're hungry, you are actually thirsty, so having a glass of water before your meal may help you to keep an eye on your calories too. Plain old tap water is a cheap, convenient, sugar and calorie-free way to stay hydrated. Bottled water is a more costly alternative but makes a nice change.

10 ways to get more fluid

1. Keep an eye on the wallet by ordering a jug of tap water when you go to a restaurant.
2. Get into the habit of having a glass of water by your side when you're working. If you're at a desk, keep that glass of water topped up regularly. Moving away to go and get a refill also ensures you get a bit of exercise!
3. Try vegetable juice for a change. Drizzling Worcester sauce and a dash of Tabasco into tomato juice livens up the taste buds. You could even try adding cracked black pepper and some chopped coriander leaves for extra flavour.

4. We also get water from the food we eat, especially fruit and veg. So making sure you get your five a day also ticks the fluid box. Fruit and veg that are particularly rich in fluid include cucumber, melon, watermelon, onion, marrow and citrus fruits. Enjoy plenty of other nutritious water-packed foods such as salad, low fat yogurt, soups, and stews.
5. You can liven up water with lemon, lime or mint.
6. You could try sugar-free soft drinks, which are about 98 per cent water and contain artificial sweeteners.
7. Try diluted squash or cordial for a change. There are plenty of different flavours and you could even freeze it into ice-lollies. Lime and soda is a cheap, refreshing drink and ordering it might help you reduce the number of alcoholic drinks you have next time you're at the pub!

ık enough fluid

8. Try pure fruit juice and smoothies. A 150ml glass counts as one of your '5 a day' and individual bottles of smoothies generally count as 2 of your 5 a day since they are made up of 150ml of fruit juice and crushed whole fruits. Aim to keep to one serving a day as pure juice and smoothies contain natural sugars. They are best served well diluted for younger children (to reduce the risk of tooth decay).
9. Tea or coffee (standard, herbal or fruit) are great ways to have a fluid top-up. Fruit teas provide a level of sweetness and drinking them might prevent you reaching for the cookie jar with your customary cup of tea.
10. Flavoured milk and yogurt drinks not only help to top up your fluid levels, they also provide calcium. Note that most do contain added sugar. How about making your own with naturally sweet fruit and yogurt or low fat milk?

More information

http://www.bda.uk.com/foodfacts/fluid.pdf

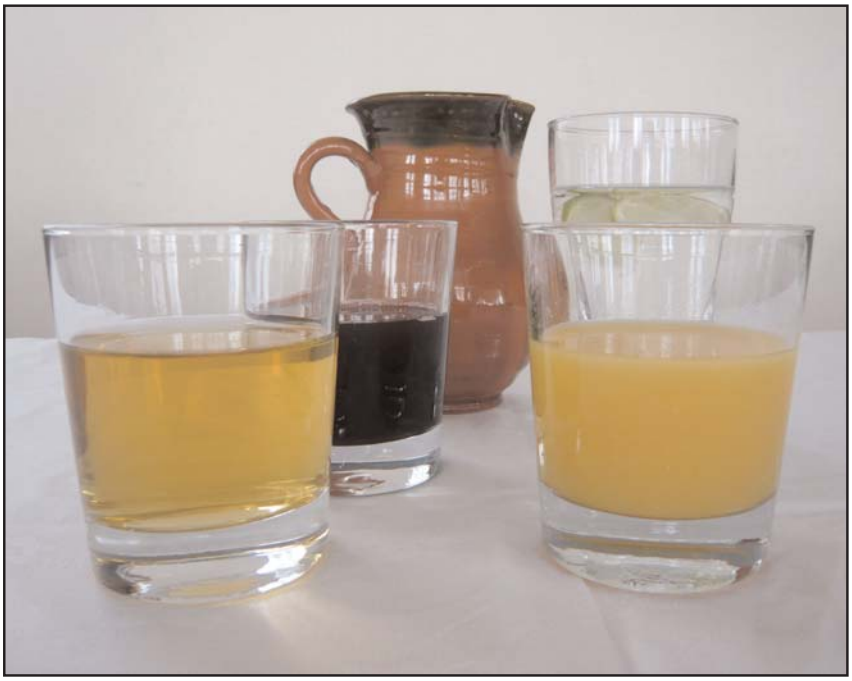
http://www.nhs.uk/Livewell/Goodfood/Pages/water-drinks.aspx

Alcohol:
http://www.nhs.uk/livewell/alcohol/

Glycaemic Index:
http://www.diabetes.org.uk/Guide-to-diabetes/Food_and_recipes/The-Glycaemic-Index/

and
http://www.glycemicindex.com/

Hyponatremia: **http://www.nhs.uk/conditions/dehydration/pages/prevention.aspx**



Fruit juices and water: remember to keep your intake of sugary drinks to a minimum and have them with a meal.

Fluid: **http://blogs.food.gov.uk/science/entry/What_comes_out_must_go_in**

USDA Guidance
The combination of thirst and usual drinking behaviour, especially the consumption of fluids with meals, is sufficient to maintain normal hydration. Healthy individuals who have routine access to fluids and who are not exposed to heat stress consume adequate water to meet their needs. Purposeful drinking is warranted for individuals who are exposed to heat stress or who perform sustained vigorous activity.

About the author
Azmina is a registered dietitian, consultant nutritionist, broadcaster and best-selling author. She is director of Azmina Nutrition **www.azminanutrition.com** and shares daily tips at **www.twitter.com/AzminaNutrition**. Azmina has written 15 books including the Gi Plan with Nina Puddefoot and The Diabetes Weight Loss Diet with Antony Worrall Thompson. She was Chief Dietitian to Diabetes UK from 1987-1995 and is currently a media spokesperson for the British Dietetic Association.

Recipe corner: sautéed mushrooms with parsley and garlic

In this month's newsletter former Poldark star Robin Ellis tells his story of life with type 2 diabetes.

Here is a recipe from his book: ***Delicious Dishes for Diabetics - A Mediterranean Way of Eating***.

Serves 4

Delicious as a vegetable side dish or on a slice of wholewheat toast as a snack or starter - with a poached egg on top?

4 tbsp olive oil
450 g/1 lb field mushrooms - sliced top to toe in thicknesses of 1cm/½ inch
1 clove of garlic - finely chopped
handful of parsley - chopped
salt and pepper

1. Heat the oil in a large frying pan. When hot, carefully put in the mushrooms. Turn them smartly in the oil - they'll soak it up quickly. After a couple of minutes when they're on their way, turn the heat down. Leave them to soften for about another 4 minutes - they will start to squeak and give off some liquid when you agitate them.

2. Turn up the heat and sprinkle the garlic and parsley over them. Turn them over in the pan and season.

Novel/newer treatments for type 2 diabetes and obesity

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Diabetes drugs that don't cause weight gain

Until recently, the only diabetes drugs that were not associated with an increase in weight were metformin and acarbose; it is not fully understood why metformin does not increase body weight but it can make some people feel nauseous and perhaps a small decrease in appetite does occur even if this is not the case. Acarbose slows the digestion of carbohydrates, but can cause stomach upset and wind so is not widely used in the UK.

Two newer groups of drugs are also associated with no weight gain or even weight loss. These are drugs which work on the gut hormone glucagon-like peptide 1 (GLP-1) system. GLP-1 is an important hormone produced by the intestines when we eat. Its main function is to send a message through the blood stream to the pancreas to warn it that food is coming and to start making and releasing insulin; however it also helps control food intake by slowing the emptying of the stomach, and is part of the complex system that sends messages to the brain to say we are full. It is known that people with type 2 diabetes have reduced secretion of GLP-1, so it makes sense to try and correct this deficiency. It is not effective to simply give GLP-1 injections (like we do insulin) because it is very quickly broken down in the blood stream, so any effect is very short-lived. Two groups of medicines have been produced that help get around this problem - the first is to develop modified versions of GLP-1 that are resistant to breakdown in the bloodstream. Examples include exenatide (Byetta - twice daily injection; Bydureon - once weekly injection) and liraglutide (Victoza - once daily injection). These drugs help control diabetes mainly by stimulating insulin secretion but are less likely to cause low blood sugar than sulfonylureas because GLP-1 only releases insulin when blood sugar is normal or high. They can also help control appetite, and in trials, people lose about 2 or 3 kg in weight when using these injections to help control their diabetes, although some people find that the treatment makes them feel sick, so can't take this type of medicine.

The second approach is to prevent the breakdown of the naturally produced GLP-1 by blocking the processes that break it down in the blood stream. This is mainly due to an enzyme called DPP-4, so these drugs are called DPP-4 inhibitors. Examples include sitagliptin (Januvia), vildagliptin (Galvus), saxagliptin (Onglyza) and linagliptin (Trajenta). These drugs can also help control diabetes, but their effects on weight are less than the injections, with most studies suggesting that they have a neutral effect on weight (ie they help control diabetes, but don't make you put on weight).

New treatments that may help weight loss and diabetes control

One new group of drugs that should be soon available for diabetes treatment are the sodium-glucose transporter -2 (SGLT2) inhibitors - these drugs block the usual transport systems in the kidney, effectively making the kidney more 'leaky' for glucose. This leads to loss of glucose in the urine; at the doses used clinically, this may lead to losing an extra 50g (about 2 ounces) of glucose each day. Not only does this help lower blood sugar (by about the same amount as other diabetes treatments), but the extra daily calorie loss of about 200 calories can help with weight loss - on average people lost an extra 2 or 3kg of weight during clinical trials lasting up to a year. Other treatments in the pipeline may help weight loss by reducing appetite and stimulating insulin secretion by activating the normal pathways that control the production of GLP-1 and other appetite-controlling hormones, but it is too early to tell at the moment if these will prove to be effective and safe as treatments.

Summary and conclusions

Weight control is an important part of diabetes treatment. In some situations it may be preferable to choose medicines that are less likely to cause weight gain, or may even help with weight loss. However, sometimes treatments that might cause weight gain are essential to help control the blood sugar, so it is important to discuss the best treatment with the healthcare team who are helping you manage your diabetes. It is also important to remember that lifestyle changes are an essential part of diabetes treatment, and that whatever treatment is recommended, it is always possible to lose weight if lifestyle advice is followed correctly.

About the author

John Wilding is Head of the Department of Obesity and Endocrinology at the University of Liverpool, UK. He has been clinical academic at the University of Liverpool, with a clinical base at Aintree Hospitals since 1996, initially as Senior Lecturer, then Reader and as Professor of Medicine since 2005. His clinical and laboratory research focuses on the pathophysiology of obesity and its complications, especially diabetes, and evaluation of new treatments. He has published over a two hundred original papers, chapters and review articles related to his clinical and laboratory research interests in type 2 diabetes and obesity. He is a member of the editorial boards of the International Journal of Obesity, and of Diabetes Obesity and Metabolism and an Associate Editor of Diabetic Medicine. He is Chair of the UK National Clinical Research Network Metabolic and Endocrine Speciality Group and a past Chair of the UK Association for the Study of Obesity.

Living with diabetes, by Robin Ellis

Former Poldark star Robin Ellis on life with type 2 diabetes

Soon after moving to France permanently in 1999, I was diagnosed with type 2 diabetes. It was picked up in a routine PSA blood test to check for prostate cancer (undertaken at the urging of an old school friend who had been diagnosed with that illness).

The prostate was fine, but the test showed elevated levels of glucose (sugar) in my blood. My French doctor spotted the danger and ran another test a few months later that confirmed the diagnosis.

It was a disease well known to me. My mother had died from a heart attack, related to her 30-year battle with type 1 diabetes.

I had seen, first hand, how destructive it could be - what a toll it can take on someone's body over time. Nevertheless the suddenness of her demise was shocking.

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The NHS Atlas of Variation in Healthcare for People with Diabetes

By Anna Morton, Director of NHS Diabetes

Variation in the quality of diabetes care continues to persist across the country, with the NHS Atlas of Variation in Healthcare for People with Diabetes becoming the latest report to highlight this unwarranted disparity.

The atlas is published by Right Care - a Department of Health programme which works to improve the overall 'value' of healthcare - in partnership with the NHS Diabetes-backed National Diabetes Information Service. By highlighting where healthcare varies across the country, the atlas stimulates action to address unwarranted variation - that is, when there is no good clinical reason for it.

The scale of primary care trust-related variation observed for diabetes health indicators in the Diabetes Atlas revealed a 1.5 fold variation for five out of six of the indicators relating to treatment targets in people with diabetes.

The degree of variation was found to be greatest in the following indicators: the percentage of people with diabetes who received the recommended nine key care processes, the percentage who received renal replacement therapy (RRT) and the percentage who were admitted to hospital with a stroke.

This postcode lottery has led NHS Diabetes to issue a 'call to action'. At NHS Diabetes, we believe action should be taken immediately.

We are urging healthcare providers to address the regional variations highlighted by the atlas as a matter of urgency. The information is now out there thanks to the atlas. Commissioners and clinicians need to take the opportunity presented by the atlas to remove unwarranted variation.

Healthcare professionals need to be aware of variations in the care and outcomes for people with diabetes because variation has significant implications for patients and for the NHS, particularly as the cost of treating diabetes is considerable and rising. Commissioners, all clinicians managing patients with diabetes and patient groups need to be aware of the findings in the Diabetes Atlas.

Localities that are doing well should be congratulated. However, the prevalence of diabetes is rising, with an estimated 3.8 million people expected to have diabetes by 2020 (more than one in 12 of the total population), therefore, we need to continue to seek new ways of improving care and reducing unacceptable variation.

The Diabetes Atlas contains suggestions for approaches that can be taken in the on-going process of improving the quality of care and increasing the equity of care for all people with diabetes (see the section on Moving forward: Potential actions to continue to improve diabetic care across England).

A summary of key findings

The aim of the Diabetes Atlas is to identify and quantify the extent of unwarranted variation (which cannot be explained by patient illness or patients' preferences) that may be due to unjustified geographical differences in medical practice. Key findings regarding the degree of variation observed for several of the indicators featured in the Atlas are summarised below:

- There are 2.45 million people aged 17 years or older diagnosed with diabetes in England, from an estimated 3 million people leaving 710,000 people undiagnosed.
- It is costly to treat diabetes and £725 million was spent on prescribing in 2009/10, an increase of more than 40 per cent since 2005/06. Diabetes prescribing costs are increasing faster than those for any other category of drugs.
- The scale of primary care trust-related variation observed for indicators in the Diabetes Atlas revealed a 1.5 fold variation for five out of six of the indicators relating to treatment targets in people with diabetes. The exception was glucose control in type 1 diabetes where more pronounced variation was seen. This may be related to the complexity of type 1 diabetes which affects mainly younger people and also the multiple settings in which people with type 1 diabetes receive their care when compared to people with type 2 diabetes who receive diabetes management mainly in primary care.
- The degree of variation was found to be greatest in the following areas: the percentage of people with diabetes who received the recommended nine key care processes, the percentage who received renal replacement therapy (RRT) and the percentage who were admitted to hospital with a stroke.
- When considering the degree of variation observed in people with diabetes who received RRT or who were admitted for stroke, historical variations in the provision may be responsible because these complications take many years to develop. It is reasonable to hope that the reduction in the degree of variation for treatment targets reported in the Diabetes Atlas when compared with the degree of variation in treatment targets in previous years will reduce the current levels of variation in diabetic complications in the future.

Every healthcare professional can make good use of the information in the Diabetes Atlas and the first-rate information that is available about diabetes care and outcomes through the National Diabetes Information Service (NDIS). In addition, utilising NHS Diabetes as a source of information and the diabetes networks it supports gives commissioners and service providers ample opportunity to ensure that the diabetes care provided in each and every patch of the country is of the best possible standard.

The role of NHS Diabetes is to provide the essential link between diabetes strategy and frontline improvements for patients. Through our integrated work programmes we provide national leadership and direction as well as support to local organisations working to champion excellent diabetes care.

NHS Diabetes has a team of diabetes and commissioning experts who work with clinicians and managers in primary care to raise the standards of care for people with diabetes. If local NHS organisations recognise that they need to address their diabetes services, we will help review improvement plans.

More information

www.diabetes.nhs.uk

http://www.rightcare.nhs.uk/index.php/atlas/diabetes/

About the author

Anna Morton has a commercial background in strategic planning and transformational change in the private sector. Since joining the NHS, she has worked in local, regional and national service improvement leadership roles. As the Director of NHS Diabetes, Anna is challenging the diabetes care status quo, and demanding an evidence-based shift in quality, safety, patient experience and productivity.

Living with diabetes, by Robin Ellis

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Having experienced the trauma of Ma's death and knowing the difficulties and complications she had endured beforehand, it was not hard for me to take on board the potential dangers of this insidious condition.

I was lucky; because there are few pronounced symptoms in the early stages of type 2 diabetes, some people find it difficult to take it seriously and are reluctant to make changes to their daily routine. That was not the case for me. After a week or so of "why me" and "c'est pas vrai" behaviour; I faced facts, bought some books and started to read up about it.

A friend put me onto Michel Montignac's book "Dine Out and Lose Weight" in which the author talks of adopting "a way of eating" rather than "dieting" as a means of losing weight and keeping it off - a crucial element in the control of type 2 diabetes.

Montignac, who grew up in southwestern France - where eating well and plentifully is a way of life-and had inherited his family's tendency to obesity. He believed that diets served only as a short-term fix - and were rarely effective in the long run. He researched another approach which he described like this: “There is no deprivation, and it is not a diet. It is more a lifestyle. It is designed not only to aid weight loss in the short term, but also to help people maintain their weight loss long term by advocating healthy eating habits, which can also prevent illness and disease."

Montignac was an early advocate of the Glycemic Index of foods - which measures the effect of carbohydrates on blood sugar levels (how quickly carbohydrates turn to glucose in the blood) - to help people lose weight. He distinguished good carbs (unrefined with a low glycemic index) from bad (a high glycemic index) and asserted that it is the high sugar content in bad carbs that encourages the body to store unwanted fat. He did not believe that high calorie intake per se added weight.

I made adjustments in what I ate. I cut out white rice, white bread, white pasta; favouring instead brown basmati rice, wholewheat pasta and rye bread. I also gave up eating potatoes - which are high on the glycemic index (never having had a sweet tooth, forgoing desserts was no sacrifice).

Montignac was a native of southwest France (where I live now) - and where the positive qualities in wine and dark chocolate are readily recognised! True to his roots he encouraged their inclusion - in moderation naturally - in his way of eating! A square of 90% cacao chocolate with a delicious dried fig, makes a perfect finish for a meal for me now.

Following his guidelines, I lost about eight pounds and stabilised my weight. The phrase "A way of eating" quickly became a mantra for me when discussing how I was dealing with the diagnosis. It helped me define an approach to my new circumstances in terms of everyday eating.

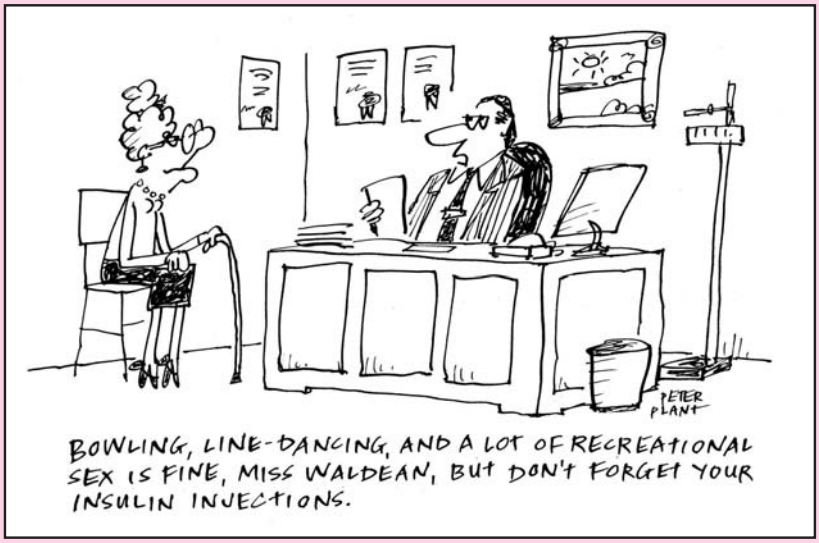
For years our diet had been centred round the Mediterranean, favouring olive oil as the cooking agent rather than butter. The adjustments we made were relatively few and there was little feeling of being deprived. I say "we" advisedly. My wife Meredith continues to eat more or less the same way as I do (though when we have company she usually makes - and eats - dessert.)

It was Meredith who persuaded me to pull together my collection of recipes which Constable and Robinson published last year as ***Delicious Dishes for Diabetics - A Mediterranean Way of Eating***.

To our delight, the book has sold well in America and the UK. I launched myself as a food blogger and share recipes and stories of life in rural France on **http://robin-ellis.net.**

Tale end

Don’t forget



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