Insulin Dependent Diabetes Trust

Diabetes
Stress, Anxiety and Depression

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The most frequently occurring mental health problems incorporate depression and anxiety. They cause impaired functioning and make up about 1 in 5 primary care consultations. [McManus et al, 2009. Results of a household survey]

Many people do not seek treatment and when they do, their conditions are often not identified. According to NICE [2009], 90% of depressive and anxiety disorders that are identified are treated in primary care, by the GP.

The findings from the latest national psychiatric survey for England shows the following prevalence of common disorders at a given point in time:

- 1.1% have panic disorder [panic attacks]
- 1.4% have phobias
- 2.3% have depression
- 4.4% have generalised anxiety disorder

It is well recognised that people with long-term conditions such as diabetes, are more likely to suffer from depression. Just living with diabetes means that they are also more likely to be in stressful situations or to suffer with anxiety. This leaflet provides information about stress, anxiety and depression.

Exercise – it is well worth remembering that taking physical activity helps to relieve depression, stress and anxiety, even if you don't feel like it!

Stress And Diabetes

Stress is a very frequently used word and tends to cover many things but while it may seem an over-used word, stress can be a very real

problem and one that needs recognising. Most of us probably know that there is a 'top ten' list of things that are stressful – the death of someone close, moving house, divorce, etc. People with diabetes are just as likely to suffer these stressful situations as other people. In addition diabetes, its diagnosis or the diagnosis of complications are stressful events for many people. We also have to remember that it may be stressful for close relatives – spouses, partners, parents and siblings.

For people with diabetes, stress can affect blood sugars and although much of the medical literature says that stress makes the blood glucose levels rise, in some people stress appears to make blood sugars fall and cause are more hypos. It maybe that stress affects people in different ways or may be blood sugars just fluctuate more, whatever is the case, the message has to be to learn to know how stress affects you and your blood glucose levels.

How the body handles stress

The body handles stress in much the same way as it handles danger and there are three stages to this:

Fight or flight stage

Any danger or stress triggers the release of adrenaline and other hormones into the blood stream and it is these hormones that enable the body to defend itself. Breathing, the heart rate and blood pressure rises pumps more blood to the muscles so that they are ready for action. This is when the blood sugars rise. If the stress is eliminated at this stage, then the body relaxes and goes back to normal.

Resistance stage

Some stressful situations cannot be eliminated at the fight and flight stage, for example a job you hate but can't leave or deteriorating health. At this stage the stress becomes chronic. The body continues to fight the stress by releasing high levels of the stress hormones even though the fight and flight responses have worn off and breathing and the heart rate may be normal. This is when symptoms appear such as anxiety attacks and/or mood swings – the feeling of being 'stressed out'.

Exhaustion stage

This stage occurs when the effects of chronic stress affects health. The immune system does not work as efficiently so that people are vulnerable to infections. The continual long-term fight against stress reduces the body's energy stores so that there is fatigue that may be followed by depression, sleeplessness and poor appetite. This is when blood sugars, blood pressure and cholesterol levels may become more difficult to control. There is also a risk of heart attack.

Stress and blood glucose levels

Under stress the body produces hormones, adrenaline being the one we have all heard of and it is often called the fight and flight hormone. These hormones cause the body to release stored glucose and fat for the extra energy that is required to deal with the stress, but they can only be used providing the body has enough insulin. It is this sudden extra production of glucose in people with diabetes that causes the blood sugars to rise. This can be made worse by the way many people react to stress – by overeating or taking less exercise because of the lack of energy. It may be necessary to increase your insulin dose or alternatively take more exercise. Exercise will not only help to reduce your blood sugars but is also recommended as a method to help people cope with the stress itself.

Personality, stress and blood glucose levels

In a study, published in The Journal of Health and Social Behaviour, researchers examined the behaviour, personalities and blood sugar levels of 57 people with Type 1 diabetes and 61 with Type 2 diabetes. The participants were divided into two groups according to personality types – self-controlled types and reactive emotional types. The results showed:

- People with Type 1 diabetes appear to be more susceptible to physical harm from stress.
- Among the Type 1 group the self-controlling types had better blood glucose control under stress and the emotional, reactive types had worse control.

- In Type 2 diabetes where some insulin is still being produced, the body's ability to automatically manage its own affairs is impaired but remains in tact.

There may be little that we can do about our personality but understanding ourselves and what is happening to us can help to reduce the effects of stress.

What is stress and how does it affect us?

An article by Dr David Lowenstern in 'Reading Out', the journal of the GBS Support Group explains this very well:

- Stress is something that interrupts our routines and causes us to change. It is disquieting and distressing.
- We develop routines and habits of doing things and anything unexpected or unfamiliar is a stressor.
- A stressor can be useful up to a point as it increases our performance and encourages us to strive and cope with difficult things. There may come a point when it becomes difficult and we can cope no longer. This can happen with long standing conditions or illnesses [like diabetes].

What happens when we get very stressed?

We have a stress reaction which may be an autonomic nervous system response, affecting our blood pressure, heart rate and causing sweating. But there may be other psychological effects that are not so easy to deal with, such as depression and frustration [diabetes can be very frustrating, as can be many long-term conditions!]

Depression and frustration are expressed in many different ways:

- We embellish things, fantasies run wild and we start feeling things that aren't actually there [eg imagining the whole world is against us or that people are talking about us].
- We get anxious and worried about things that might happen.
- We get angry and very, very angry.

"How often are we encouraged to be angry?"

Dr Lowenstern points out that this is very rare because we become seen as rude and impolite and other people avoid us. But every time we feel anger and we don't express it, we are actually being rude and impolite to ourselves.

The stiff upper lip, keeping things bottled up and doing the right and proper thing, is not necessarily the best thing to do because stress comes out in other ways. It builds up like steam in a pressure cooker with the vent closed and then it blows. This is what happens to us if we keep the stiff upper lip at a time of stress – our feelings and frustrations spill over and our families tell us we are very difficult to live with. This is something we cannot always see for ourselves.

Four main key ways to managing anger:

- Not misinterpreting other people's behaviour to you as hostile.
- Identifying factors in your upbringing that predispose you to anger.
- Learning ways to express legitimate anger.
- Forgiving those that hurt you.

[American psychologist Leonard Ingram, Observer Magazine, May 21, 2000]

How do we cope with stress?

This depends on several factors:

- our own particular style of coping
- what kind of stress we are under
- the time scale
- our inherited ability to cope
- the availability of support
- how much control we can retain.

There are 4 main coping styles with stress or a crisis:

- **Denial** – when we don't want to know about it, we are told but we shut our ears. This can be helpful because it gets us through the day and protects us but it can be obstructive and self-defeating. For example, the diagnosis of diabetes is stressful and can cause denial but if the denial extends to actually not taking the prescribed

insulin then there is a very real problem.

- **Regression** – this is when we use what is tried and tested from the past. We become younger and tend to be child-like. Very competent people when faced with what, to them, is an awful situation can be reduced to crying like a baby – even though this doesn't sort out the problem.
- **Inertia** – this is just giving up thinking, with statements like "What's the point?" or "It's all too hard". Inertia does not get us very far, it's infectious and may cause our family to give up too.
- **Mature problem-solving** – this is a mixture of expressing our feelings about what is going on, trying to realistically weigh up what is happening and finding some sort of acceptance of it within ourselves. It is not giving up, not losing all the fight within us but accepting the situation.

For many of us being able to talk and share our experiences or our worries is the way we deal with stress. Women are often far better at this than men because men tend to believe that they are strong or are expected to be strong. So men are much more likely to be the pressure cooker with the vent closed.

The clear message from Dr Lowenstern is:
"Keep talking, don't be silent. If you feel like crying, cry and if you feel angry, be angry. Don't keep quiet as far as doctors are concerned – keep sticking up for yourselves and remind yourself that it is your body and your life and you have a say in it. Retain some sense of control of what is yours but at the same time recognise that there are some limitations, especially as you get older."

Ten general tips for coping with stress

1. **Avoid self medication with nicotine, too much coffee, alcohol or tranquillisers.**
2. **Work off stress – physical activity is a terrific outlet.**
3. **Don't put off relaxing.**
4. **Get enough sleep to recharge your batteries.**
5. **If you become sick, don't try to carry on as if you are not.**
6. **Agree with somebody – life should not be a constant battle ground.**
7. **Learn to accept what you cannot change.**
8. **Manage your time better and learn to delegate.**
9. **Know when you are tired and do something about it.**
10. **Plan ahead by saying 'no' now. You may prevent too much pressure piling up in the future.**

Maintaining a sense of humour is worth remembering too!

Anxiety

There are over 100 symptoms of anxiety. Each person has a unique chemical make up so the type, number, intensity, and frequency of anxiety symptoms will vary from person to person. For example, one person may have just one mild anxiety symptom, whereas another may have all anxiety symptoms and to greater severity.

What is anxiety?

- Anxiety is 'being afraid' and occurs as a result of perceived danger. This in turn activates a self- protection mechanism to alert us to and protect us from this perceived danger. Hence the body reacts and produces the symptoms of stress, as described in the 'Stress' section of this leaflet.
- Anxiety is a needed protection mechanism.
- Anxiety turns into a disorder when a person becomes physically, psychologically or emotionally symptomatic, fearful or distraught because of it. If it does become a disorder, it can be reversed.
- Anxiety is not something which is genetically inherited or an illness which can be contracted.

Essentially people with anxiety live more stressfully and fearfully than others and as a result the body produces symptoms of stress or 'anxiety symptoms'.
The National Institute of Mental Health lists the six main categories of anxiety disorder as:

- Panic Attack Disorder (Anxiety Attack Disorder, Anxiety Attacks, Panic Attacks)
- Generalised Anxiety Disorder (GAD)
- Obsessive-Compulsive disorder
- Social Anxiety Disorder
- Phobias
- Post-Traumatic Stress Disorder

According to NHS Choices, if you are anxious as a result of a phobia or because of panic disorder, you will usually know what the cause is. For example, if you have claustrophobia (a fear of enclosed spaces), you know that being confined in a small space will trigger your anxiety. However, if you have GAD, what you are feeling anxious about may not always be clear. Not knowing what triggers your anxiety can intensify your anxiety and you may start to worry that there will be no solution.

Anxiety conditions can generally be divided into two main categories:

- **Circumstantial anxiety** – this is when symptoms appear because of acute stressful events, circumstances or emotions. Examples include a relationship difficulty, job loss or job promotion, illness or death of a loved one, or heavy workload. A build up of stress often comes before an anxiety condition, most early stress conditions fall within this category. Once the event, circumstance, or emotion has passed, with sufficient self-help materials, rest, and time, most anxiety conditions in this category resolve on their own.
- **Chronic anxiety** – this is when the symptoms come and go over an extended period of time, months to a year or more. Examples include, where the symptoms come and go at different stages of life or remain as a background throughout someone's life. Chronic anxiety also has a deep-seated fear component. Many feel that they live in fear whenever their "episodes of illness" appear. Others may have it as a constant companion as they journey through life. Episodes can last a few weeks to many years. Some can remain constant throughout their life.

Within these two categories there are four types of anxiety:
Spontaneous anxiety or panic – anxiety or panic that occurs regardless of where a person is.
Situational or phobic anxiety or panic – anxiety or panic that occurs because of a particular situation or location.
Anticipatory anxiety or panic – anxiety or panic that occurs because of a thought that something "might" happen or a situation that "might" occur.
Involuntary anxiety or panic – anxiety or panic that occurs involuntarily, by itself, or "out of the blue" that hasn't been preceded by spontaneous, situational, or anticipatory anxiety.

Symptoms of anxiety

General anxiety disorder can cause physical and psychological symptoms. They often develop slowly and vary in severity from person to person.

Psychological symptoms include:

- a change in behaviour and the way you think and feel about things
- restlessness
- a sense of dread
- feeling constantly 'on edge'
- difficulty concentrating
- irritability
- impatience
- easily distracted.

These symptoms may cause people to withdraw from social contact [visiting family and friends] to avoid the feelings of worry or dread. It may be difficult and stressful to go to work and sick leave may be necessary. However, these actions can cause even more worry and add to the feeling of lack of self-esteem.

Physical symptoms

There are over 100 symptoms which include:

- dizziness
- drowsiness and tiredness
- pins and needles
- irregular heartbeat (palpitations)
- muscle aches and tension
- dry mouth
- excessive sweating
- shortness of breath
- stomach ache
- nausea
- diarrhoea
- headache
- excessive thirst
- frequent urinating
- painful or missed periods
- difficulty falling or staying asleep (insomnia)

Treatment

Many people can achieve some form of anxiety and symptom reduction on their own although the results may be temporary.

There are two main forms of treatment for generalised anxiety disorder:

- **psychological therapy** – this is often prescribed before medication. The main form is psychological treatment is cognitive behavioural therapy [CBT]. Evidence suggests that about 50% of people who have CBT recover and many others obtain some benefit. CBT mainly focuses on the problems that you are experiencing in the present, rather than events from the past. It teaches you new skills and helps you to understand how to react more positively to situations that would usually cause you anxiety. The National Institute for Health and Clinical Excellence [NICE] recommends that you should have a total of 16 to 20 hours of CBT over a period of four months. Your treatment will usually involve a weekly one- to two-hour session.
- **medication** – usually antidepressants. NICE [2011] says that you have the right to make informed decisions about your treatment. Antidepressants are one option but decisions about their use need to be based on a shared problem assessment and a care plan that accounts for your preferences.

Depending on the circumstances, one of these treatments or a combination of both may be beneficial. No single treatment is best for everyone although there is evidence that psychological treatments last the longest.

Your GP should discuss all your treatment choices with you before you begin any form of treatment. You should be given the advantages and disadvantages of all and at the same time, discuss any possible risks or side effects. You can then make a decision with your GP about which treatment is most suitable for you, taking into account your circumstances and preferences. For example, some people may prefer psychological treatment such as counseling, in preference to treatment with antidepressants.

Exercise – it is well worth remembering that physical activity helps to relieve anxiety.

Depression and Diabetes

The prevalence of major depression in the UK population at any one time is about 5%, although as many as one person in three may experience an episode of depression in their lifetime. The presence of other illnesses may complicate or worsen depression and vice versa.

Research has shown that depression may occur in:

- Up to 60% of stroke patients
- Up to 40% of people with Parkinson’s disease
- Up to 42% of cancer patients
- Up to 21% of people with irritable bowel syndrome
- Up to 14-18% of people with diabetes

A study by Brazilian researchers showed that among a group of people with diabetes, of those whose HbA1c levels averaged less than 9%, only 21% tested positive for depression. By comparison of those with HbA1cs over 9%, 42% tested positive for depression. Other research has shown that people with chronic conditions, including diabetes, are three times more likely to suffer depression than the general population.

The researchers used cognitive therapy to reverse the depression. In those people where depression improved, there was an average HbA1c of 8.3% while those who showed little improvement had an average of 11.3%. While these results show an association between high blood sugars and depression, it remains unclear whether high blood sugars cause the depression or depression causes high blood sugars. [American Diabetes Association Conference 1998]

Research published in 2010 found that:

- people with depression were 17% more likely to develop Type 2 diabetes
- people with diabetes were 29% more likely to have depression compared with people without diabetes
- the risk of diabetes was greater in those with depressed mood, rising to 25% greater in those on antidepressants
- People with diabetes had a greater risk of depression rising to 53% higher among those treated with insulin.

The researchers recommend lifestyle changes to lower the risk of both conditions eg weight management and regular exercise. [Arch Intern Med 2010;170:1884-9]

How do you know if you are depressed?

- The signs of depression include the following:
- No longer enjoying or being interested in most activities.
- Feeling tired or lacking energy.
- Being agitated or lethargic.
- Feeling sad or low much of the time.
- Weight gain or weight loss.
- Sleeping too little or too much.
- Difficulty paying attention or making decisions.
- Thinking about death or suicide.

If you have some or all of these symptoms over two weeks or more, then you should see your doctor.

How does depression affect people with diabetes?

An international report has shown that having diabetes and depression has the greatest negative effect on quality of life compared to diabetes or depression alone, or other chronic conditions. [Lancet 2007;370:851-8]

Research using questionnaires has shown that depression in people with both Type 1 and Type 2 diabetes may have the following effects:

- They are less likely to eat the types and amounts of food recommended.
- Less likely to take all their medications.
- Less likely to function well, both physically and mentally.
- Greater absenteeism from work.

[Archives of Internal Medicine, Nov 27, 2000]

The need for diagnosis

Recent estimates suggest that up to three quarters of cases of depression in people with diabetes may go undiagnosed. This may be because of poor detection rates but it could also be that some people with diabetes don’t report their symptoms of depression because they see them as ‘just part of having diabetes’.

Screening for depression [not specifically for people with diabetes] has been recommended by national and international bodies and in the UK, the Department of Health recommends that all GPs use two simple questions to screen for symptoms of depression:

- **During the last month, have you been bothered by feeling down, depressed or hopeless?**
- **During the last month, have you often been bothered by having little interest or pleasure in doing things?**

If people answer ‘yes’ to either of these questions, they are given a questionnaire to answer to measure the extent and nature of the

symptoms. So if you answer ‘yes’ to the two questions above or you have more mild symptoms, you are not alone and the clear message from research is to seek help from your doctor because there is a good chance that your life will improve.

It is important that similar methods are used in diabetes hospital clinics where many people with Type 1 diabetes receive their treatment.

Treatment

Treatment for depression in people with diabetes has been shown to be effective and has the additional benefits of improving blood sugar control. The evidence suggests that cognitive behaviour therapy and anti-depressant medicines are as effective in people with diabetes as in those without diabetes. One study found that not only did treatment improve blood sugar control but during treatment there was an improvement in mood and weight. As the treatment of depression can improve blood sugar control, it is also likely to reduce the risk of complications but importantly, it can also improve quality of life.

It is also well recognised that exercise helps to reduce depression, so although it may be the last thing that people feel like doing, it is worth increasing the amount of exercise being taken.

IDDT Helpline

IDDT has a CONFIDENTIAL Helpline to offer support to anyone affected by diabetes. This includes people with diabetes and their families, health professionals, teachers, employers and others.

Our aims are to offer understanding and empathy in a non-judgmental way to support people in making the decisions that are right for them.

HELPLINE telephone 01604 622837

IDDT has expended its Helpline services and from January 2011, it will be available from 9.00 am to 5.00pm, Monday to Fridays.

The IDDT helpline offers callers:

- A respectful listening service
- Information
- Emotional support
- Written information, as appropriate

What the IDDT helpline does not offer to callers:

- It does not offer medical advice
- It does not offer the opportunity to speak to medically trained staff
- It does not offer professional counselling

We are here to help where we can!

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