Who is this leaflet for? What is its aim?

Stress and anxiety have an impact on your body. Simple relaxation techniques can help to reduce the impact of stress and anxiety (the two are closely linked) on you. This leaflet is to help you learn some simple relaxation techniques that will help you for life, including during pregnancy, labour and whilst looking after young children.

Relaxation, diabetes and planning for pregnancy

What does stress and anxiety do to my body?

Your nervous system has two main states of being or of responding to your environment – the sympathetic response and the parasympathetic response.

When you are stressed, fearful, anxious or facing a challenge, the sympathetic response comes into play. It affects every system via the nerves running throughout your body, and is to help you overcome challenges and dangers. It is sometimes called the fight-or-flight response, and when you are in this state you release hormones called catecholemines, the best known being adrenaline, which have the following impact:

- Your heart-rate increases
- Your blood goes to your arms, legs and lungs and away from your digestive system (your digestion slows down)
- Your breathe more quickly
- Your blood pressure goes up
- Your mouth can feel dry
- You sweat more
- You pee less
- Your pupils dilate
- Your liver converts more glycogen to glucose (not great for your readings!)

All this is great to help you escape from danger or fight the danger but is tiring and wearing if you are not in that sort of physical danger, or if you are just getting into a sympathetic response more than you need or want to be. And it doesn't help you achieve the sort of HbA1c you want when planning pregnancy, due to extra glucose being made.
What does relaxation do to my body?

When you are relaxed, feel safe and confident, your parasympathetic response comes into play. It also affects every part of your body and fills you with a sense of calm and well-being. It is sometimes called the rest and digest response. When you are in this state, you release a hormone called oxytocin (this hormone plays an important role in birth and breastfeeding, which is why relaxation exercises are taught during pregnancy). Oxytocin leads to the release of compounds called endorphins and, together, these have the following effects:

- Your heart-rate slows
- Your blood goes to your internal organs (digestion is increased);
- Your blood-pressure reduces
- Saliva increases
- You pee more
- Your pupils constrict
- You feel calm and confident.

Oxytocin plays an important part in sex, love and co-operation and is often referred to as The Hormone of Love. It has been little understood to date but now scientists are finding out a lot about it. Meditation, yoga and relaxation can all release oxytocin and help shut off the sympathetic response. Endorphins also make one feel happier (they are sometimes described as natural opiates) and are also released when we go for a walk or run for example, and may help explain the well-known anti-depressant effects of exercise.

Sometimes anxiety and stress are thought to make conceiving a baby more difficult or take longer. This may be to do with stress preventing oxytocin being released, so stimulating the parasympathetic response through relaxation may help you conceive quicker.

The two responses – the sympathetic and the parasympathetic – cannot operate at the same time; you either experience one or the other. So learning to replace your sympathetic responses with parasympathetic responses, or shorten the amount of time you spend feeling stressed or anxious, can be very beneficial.

Two simple relaxation exercises

You can learn to relax deeply anytime and anywhere. You can take a few minutes in a traffic jam, on the train, in the stationary cupboard at work, the school gates, or the queue at the supermarket check-out to breathe and relax your face and neck muscles as described below. The more you practise, the easier it becomes.

However, to learn relaxation it is advisable to take 5 or 10 minutes at a quiet time of day to relax deeply, perhaps with a suitable CD playing softly in the background (see back of leaflet) and an essential oil diffusing or candle burning (lavender is well-known as a calming oil for example). Make sure you don’t have a full bladder before you start. You may prefer to ask someone to read the following relaxations slowly to you, or you may prefer to read them a few times and then close your eyes and work through them for the first few times you do them.
Head and face relaxation

Sit in a comfortable chair or lie on your bed.

Allow your breathing to slow down and deepen, spending a minute or two getting used to its slower and deeper rate.

Let your eyes close gently and easily, continuing to breathe comfortably, slowly and deeply.

Let the relaxation in your eyelids spread outwards to your forehead so that it too relaxes and becomes smooth and comfortable.

Just pause for a short while, and then allow the relaxation to spread naturally from your forehead to flow in and around your eyes, and on downwards through your cheeks, to your jaw, and your neck, allowing your whole face to relax.

Continue to breathe slowly and deeply.

Allow your mouth to relax as well, so that it is entirely soft and relaxed, with your lips and your eyes gently smiling.

Let your tongue relax completely naturally in your mouth, so that your whole face and head are totally and gently relaxed.

Continue to breathe slowly and deeply and enjoy the feeling of comfort and wellbeing.

Finally, allow your shoulders to relax and sink to their natural level, so that your whole body is calm, limp and relaxed, and your breathing is soft and slow.

Rest for a few minutes or as long as you like in the knowledge that this simple relaxation is there for you whenever you want to feel calm and relaxed.

Enjoy feeling the slow, steady rhythm of your breath and the soft relaxed feel of your face, neck and shoulders.

Complete body relaxation

Over time you can broaden this exercise to take in your whole body, by simply continuing to work slowly down your body allowing each part to relax and go loose and soft in turn.

Remember to continue breathing slowly and deeply.

Chest
Tummy (check that your tummy is softly rising and falling with each breath)
Arms
Wrists
Hands and fingers
Legs
 Ankles
Feet
Go back and check that no tension or tightness has crept back in higher up!

If you find worrying thoughts appearing, then focus again on your breathing and how your lungs are filling and emptying so gently and steadily.

Remember to take a few minutes simply to note how this state of relaxation feels and enjoy it.

When you have finished the exercise, just open your eyes, take a couple of deep breaths, and move your head and shoulders from side to side (unless you are planning to go straight to sleep) before getting up.

**CDs and APPs for relaxation**

Many people find relaxation CDs very helpful. There are many such CDs available and it is a very individual thing – what one person finds soothing, another may find irritating. Here are some suggestions (all available from the main internet outlets and app stores [look in “lifestyle” category]):

**Riverdawn: piano meditations.** Catherine Mary Charlton. 60 minutes of uninterrupted calm and gentle piano playing.

**Reiki: music for healing and relaxation.** Llewellyn Gentle new age music

**Body & Soul: Relaxation – resting the mind, reviving the body.** Various artists. As above.

**Hildegard von Bingen: 11,000 Virgins - Chants for the Feast of St. Ursula.** Anonymous 4. 12th century chants by a female group.

**Contacts/further information**

Diabetes specialist nurses: 01223 348780

The Wolfson Diabetes & Endocrinology Centre has a specialist diabetes psychology service which can help with issues of anxiety, depression and diabetes distress. Our psychology team offers tailored support either via phone or face-to-face in either the diabetes clinic or local GP surgery. If this is of interest to you, please discuss with one of your diabetes team who will arrange referral.

**References/ Sources of evidence**


Hospitalized With Coronary Artery Disease. 2009 American Heart Association. https://circ.ahajournals.org/cgi/content/meeting_abstract/120/18_MeetingAbstracts/S413 accessed 14.12.15

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