

Stressed? Read on...

Too much coursework?
Boyfriend won't take your calls?
Boss told you off for no reason?
Classmate cut you down in front of everyone?

How about all of the above, all on one afternoon? What do you do next? Put on the kettle and reach for the KitKats? Open a beer and have an extra cigarette? Shout at your twin? Go for a run? How about, whilst you're putting the kettle on, do you have a moan to your mum?

Researchers in TEDS Environment team have been looking at what stress does to your body and at how important coping techniques are.



C-Reactive protein and you

In one of our studies, TEDS-Environment researchers found that adolescents who experience a lot of stress have elevated levels of C-reactive protein. C-reactive protein (CRP) is a protein found in the blood and is produced by the liver.

The level of CRP protein rises when there is inflammation throughout the body, like when you have a high temperature, for example. Every now



and then is not harmful, but consistently high levels of CRP might not be good for us.

A high level of CRP is considered by many to be a risk factor for heart disease. Clearly, we don't think adolescents will have a heart attack. Rather, we think that the discovery of a link between stress and CRP is important because it shows how the brain responds to stress can influence the body's immune system in ways that can negatively affect physical health.

So, learning how to cope with stress effectively is really important! Check out the beige box to the right; see what "stress" is. And maybe, next time you feel the heat rising, try that chat with a person who cares for you.

Try this:

Jump up and down 15 times, put your hand to your chest and listen to your breathing. What you feel is exactly what the stress response triggers when it is activated.

For more information on stress, how to recognise it and deal with it, check out www.humanstress.ca

Recipe for stress

While what stresses you is different from what stresses your neighbour, the recipe for stress is universal. So are the ingredients. Stressful situations often contain one or more of the following elements:

Element	Emotions
Novelty	Something new you have not experienced before
Unpredictability	Something you had no way of knowing it would occur
Threat to the ego	Your competence as a person is called into question
Sense of control	You feel you have little or not control over the situation

Stress as an equal opportunity factor

Children and older adults (65+) are less stressed than working adults, right? After all, they do not experience time pressure or work overload. Wrong! Studies have shown that children and older adults are just as vulnerable and sometimes more vulnerable to the effects of stress.

Stress hormones are released in times of stress regardless of age, marital status, ethnicity, level of income, or level of education because the characteristics of a stressful situation remain the same for everyone. So whether you're living at home and working long days in a shop or cramming for your 'A' levels, it's good to know that you have the option of learning how to deal with stress, and not let it rule you.



TEDS-Environment Study

Spring 2012

The TEDS ladies are coming!



What! Again?

Turning 18 years old is an amazing milestone, bringing all sorts of really important changes in your life. Maybe you've already celebrated your 18th, or maybe it's still to come, but, is everybody ready?



To celebrate the changes in the lives of TEDS Twins, in 2012 we are launching a follow-up phase of TEDS-environment. TEDS twins like you, who took part in our at-home visits when they were aged 5, 7, 10, or 12, will be given the opportunity to get involved again at age 18. (No hand puppets this time, but there will be a few games on a touch screen.)

The UK Medical Research Council have said our Study is one of the most successful in Britain so far, and have agreed to a new phase of the project.



Government is keen to learn the ups and downs of becoming a young adult in Britain today, and what Britain can do to make the shift to adulthood better for young people. TEDS twins are invited to have a special say in this. We also want to find out how your experiences today are affecting your health, for good or for ill. The health of 18 year olds like you is fascinating, because your health at 18 influences how healthy you will be at 38, 58, and believe it or not, even at age 78.



So this time there will be an assessment of your health, a bit like a very quick GP check-up (one that doesn't hurt).

Within a few months after your 18th birthday, a member of our team will contact you to explain how the project works, and how you can take part. If you decide you would like to take part in this section of the project, just say "yes" and we will take it from there and arrange everything. TEDS ladies can visit you at your place, or you can travel to visit our place, for a day in London (all expenses paid!).

Turn the page to see how to get rich!

Ever wondered why we're interested in your genes? Inside, we explain why.

On the back page, we ask: 'how do you cope with stress?'

Email TEDS-Environment on our new address, office@tedsenvironment.com! Get in touch and let us know what's important to you.

You!



Here at TEDS-Environment we're really interested to know what's going on in your lives. What's interesting, what's stressing you out? What do you enjoy doing when you're not working or studying? Should we be asking you questions about your 'A' levels? Or if you've started working, what it's like starting working life right now? How big a part of your life are boyfriends and girlfriends? Let us know what matters to you, and you could make a big difference to the next phase of the TEDS-Environment Study.

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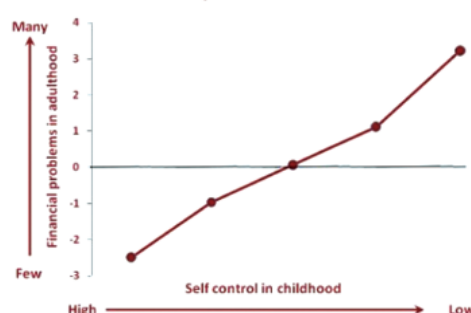
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TEDS-Environment tell you how to get rich!

Some people think that there are two ingredients to financial success: Being born into a wealthy family and being smart. But our research suggests there could be a third, much more important ingredient: self-control.

Self control is the ability to control one's emotions, behaviours and desires in order to obtain a reward, or something you want, at a later time.

A correlation between self control in childhood and financial problems in adulthood



Is developing self control important?

Absolutely! Learning self control early on can have huge implications for what happens later in life.

In one of our studies, we have followed a group of 1000 children from birth to 32 years. This study, called the Dunedin Study, takes place in New Zealand. It is a sister study to TEDS-Environment.

We discovered that children as young as 3 years who scored lower on measures of self-control were more likely to have difficulties with

financial planning and money management.

As adults, children with poor self control had fewer savings, more credit card problems, and were likely to be living from payday to payday. Good self control was more important than high intelligence in predicting these outcomes!



But how do we know that it is self-control that matters, and not the kind of family in which you grow up in?

To answer this question, we turned to you the twins in TEDS-Environment.

Here, we found that the sibling who had higher self-control at age 5 was more likely than the sibling with less self-control to be more academically and socially able, as well as better equipped to cope with frustrations. This shows that self-control is important and independent from other factors that siblings share, such as their parents and family home.

So now you've read all about how helpful it is to have self control, well, it's not just as simple as just doing it, is it?



Check out the brown box on the right for ideas to help you to improve your self control, and reap the results – at a later date, of course!

Elmo tells younger children how to get to sunnier days... financially!



The research from studies like TEDS-Environment is really making a difference. For example, 'Sesame Street' included a story about Elmo learning the benefits of self control, in order to improve his financial health. The idea behind the programme is to teach children about better self-control and improve behaviour at a very early age.

You can read more about our research on self control here:

www.pnas.org/content/early/2011/01/20/1010076108

It is never too late to learn self control

It's never too late to learn better self control. Here are three simple exercises that you can try out to improve your self control:

Don't put anything off. We all put things off that we don't enjoy doing, for example revising for exams, doing the dishes, tidying our bedrooms or tackling coursework. So, have a week where you ban yourself from putting anything off, and learn how to be a finisher of tasks.

Set a goal for yourself and achieve it. For example, set yourself the goal of reading a particular book or saving a certain amount of money by the end of the month. Successful people develop a single-minded focus on achieving goals.

Remember to constantly reload on self control by taking care of your body. Research shows that self control is weakened by lack of sleep. So, make sure you get enough rest.

Why do we study genes?

What is TEDS Environment looking for?

Lots of things in our environment – in our homes, schools, and workplaces – can sometimes harm our health. Why "sometimes"? The harm may depend on when and what you are exposed to, but also on who you are. For example, most of us can get sunburned on a bright day. But your reaction will depend on what time of day, and for how long, you are exposed to the sun. Your sensitivity to the sun may also depend on your genes.

Genes are the instructions – the marching orders – that can affect how we react to things in our environment. Every person has the same number of genes, so you might think we would all be exactly the same. But the genes themselves vary a lot or a little from person to person.



Some people may have a variation that makes them resistant to getting sunburns. Other people may have a variation that gives them a high chance of getting burned, even if they are in the sun for a very brief time period. Most of us are somewhere in between.

"genes themselves vary a lot or a little from person to person"

Why do some people get lung cancer, and not others?

Some genes signal the making of proteins called enzymes, in the lungs. Ordinarily these enzymes destroy some of the cancer-causing substances in tobacco smoke. But researchers are looking for the gene variation that may reduce these enzymes and make people more susceptible to lung cancer. In fact, most diseases have a non-gene trigger. That is, most diseases are not caused just by "bad genes", but by genes along with one or more "bad" things from the world around us.



Cream bun or apple for a mid afternoon snack? The choices you make in life will affect your health

Bad things in our environment – pollution, poor diet, lack of exercise – can lead to health problems whereas good things in our environment can be protective.

The goal of researchers on the TEDS Environment team is to identify how people (like you) respond differently to things or situations in their environment. For example, we have found differences in genes that can affect whether babies benefit from being fed breast milk or formula milk. We have also discovered differences in genes that can affect how children respond to stress.

This is why, when we interview you, we are interested not only in genes, but we also ask you a lot of questions about your lifestyle and your environment and things that stress you out.

So, what's the point?

In a nutshell, we are trying to understand how genes work with with life experiences to influence health and development. In the future, doctors may give people a list of foods, chemicals or metals to avoid, based on knowledge of how each person's genes may influence their reactions.

Most likely, the information will help people to avoid some natural hazards in their environment, much as people who aren't strong swimmers are advised to stay out of deep water.

The hope is that such knowledge may help us prevent – or avoid – a lot of disease and disability.

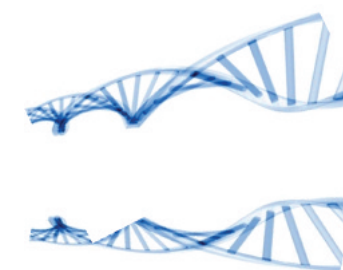
If you are interested in learning more about genetics and other interesting things, visit www.howstuffworks.com/

Sunny day?

Whether you burn or tan is not just about the weather, your genes play their part, too



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