

Adolescent wellbeing: Understanding anxiety and stress and the buffer of resilience



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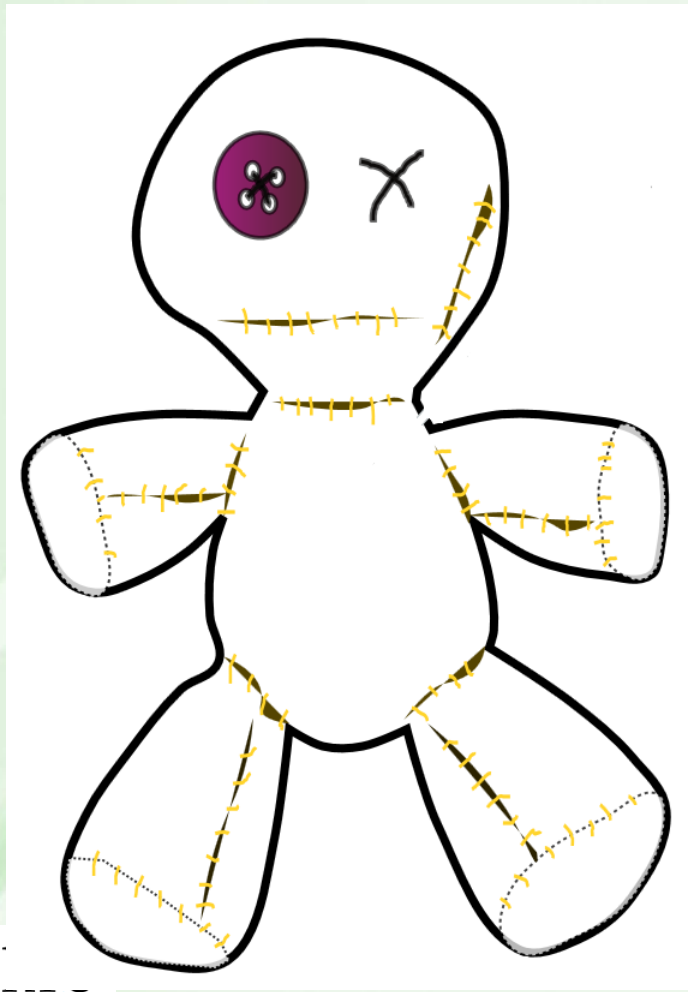
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Outline

- Definitions
- Helpful anxiety/stress & unhelpful anxiety/stress
- Relationship between anxiety/stress and resilience
- How to manage anxiety and stress when it's out of control
 - Identify it as a problem
 - Things you can do about it
- How anxiety and stress can deplete resilience
- Fostering resilience
- Related issues (e.g. mood; perfectionism)
- Adolescent factors
- Resources



What is Anxiety/Stress



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Stress

What is it?

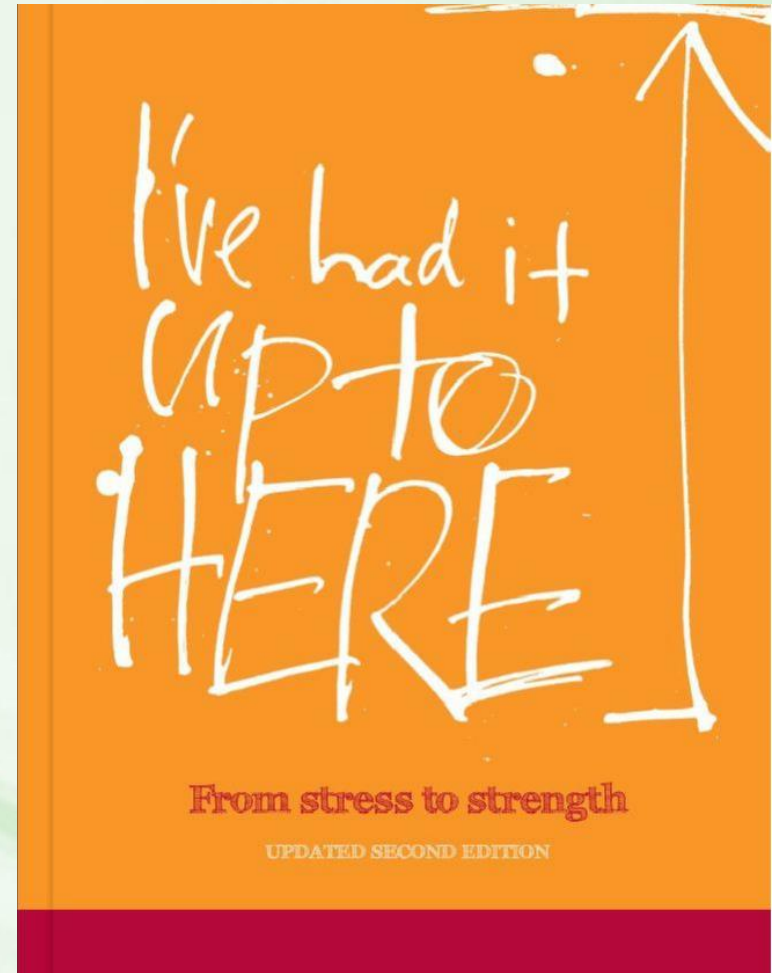


Stress

A simple definition (following Parkin & Boyd, 2011):

“Stress occurs when pressure exceeds our perceived ability to cope”

How do YOU manage stress?



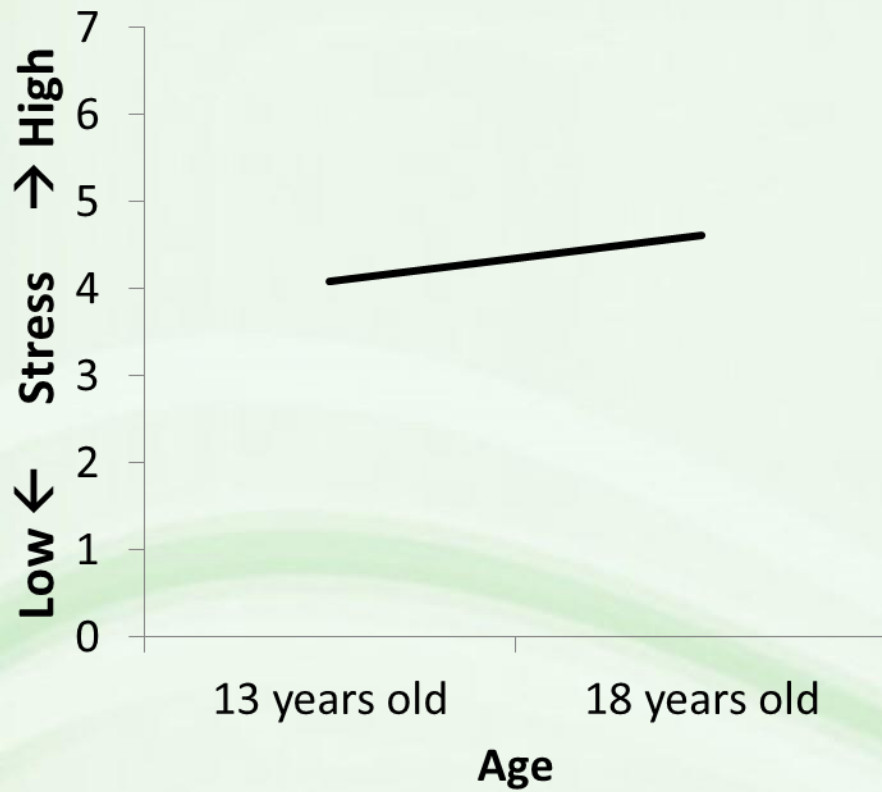
Stress

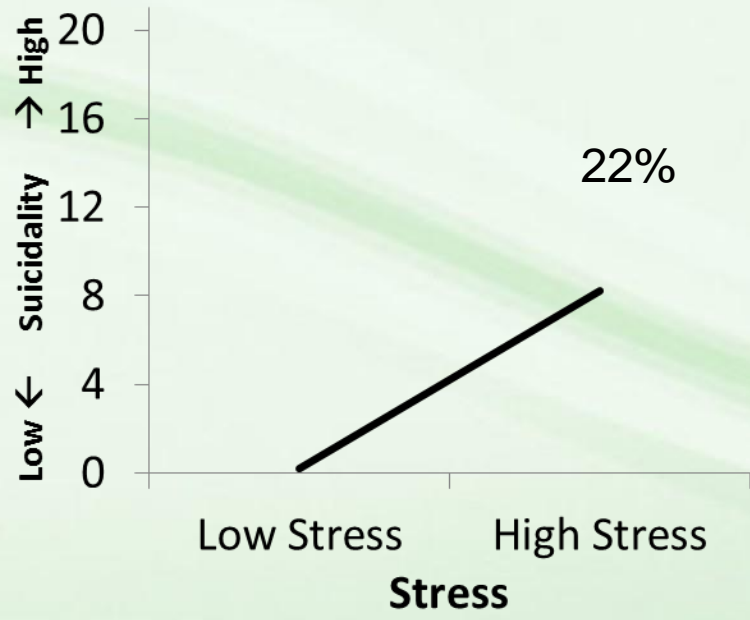
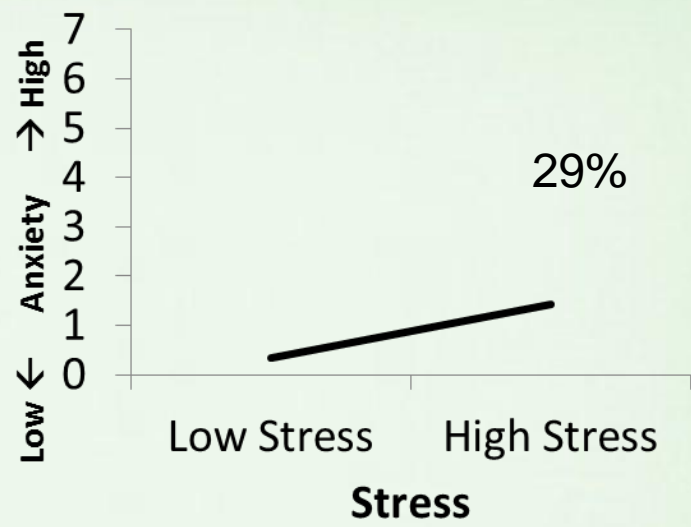
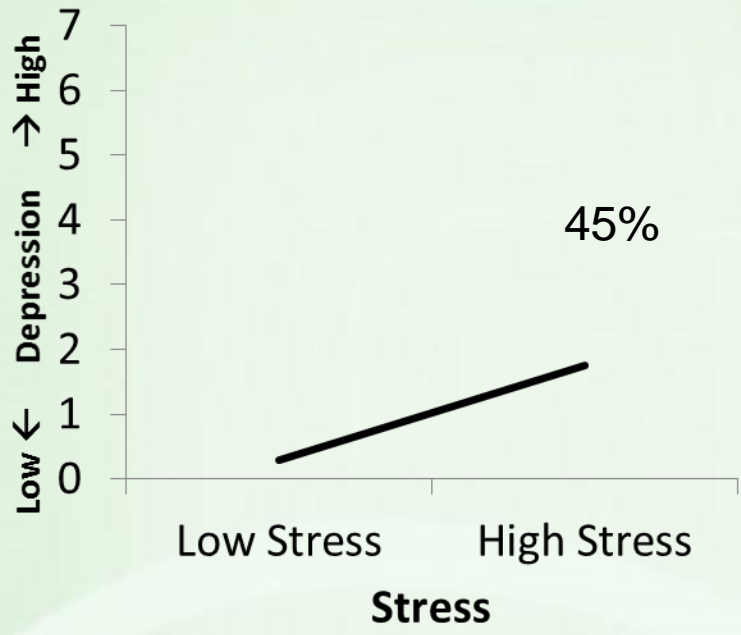
A simple definition (following Parkin & Boyd, 2011):

“Stress occurs when pressure exceeds our perceived ability to cope”

- Because stress can mean different things to different people, in different settings
- Can appear differently for different people, in different settings
- Stress causes physiological changes that produce physical reactions, feeling reactions, thinking reactions, and behaviour reactions.







Why?

- Fight vs flight

- The brain (hypothalamic-pituitary-adrenal system; HPA) – release of ‘stress’ steroid hormones like cortisol
- → activates some bodily systems (like heart, lungs, blood, metabolism, immune system, skin, digestion) and shuts others down
- → activates neurotransmitters that decrease frontal lobe activity (memory, concentration, inhibition, decision making)

Stress → Relaxation vs Stress → Stress → Stress...

PROs and CONs



'Stressors'

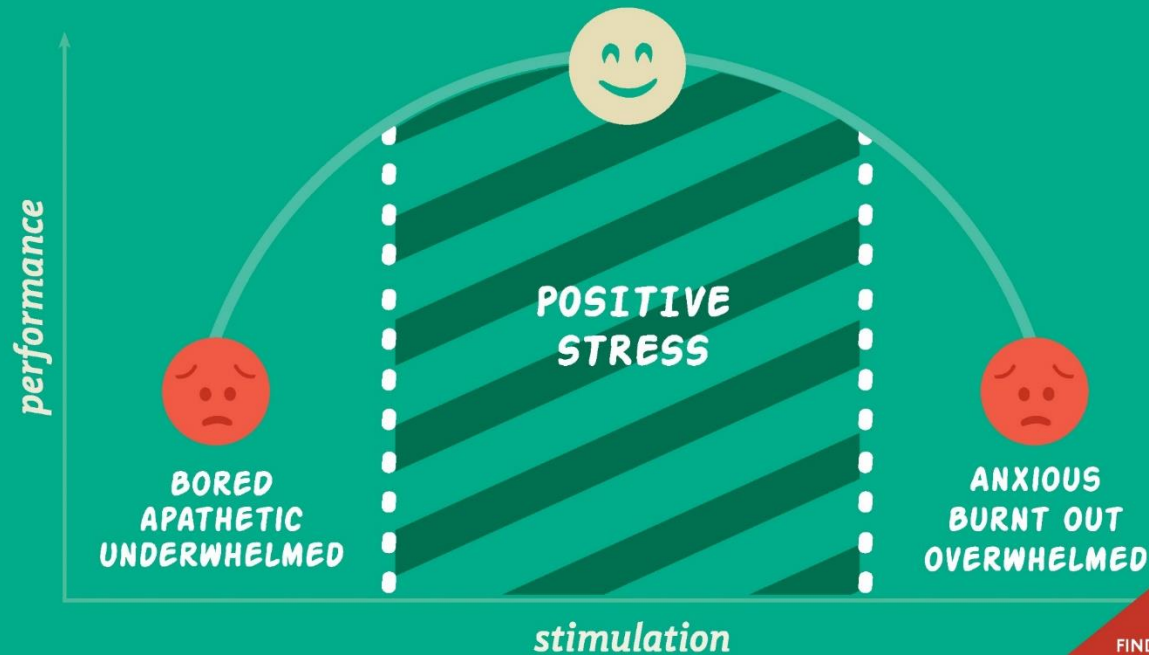
- Environment (crowding, relocation, travel, noise)
- Occupations (low control/high demand) → OOS
- Relationships
- Uncontrollable/unpredictable stress → Locus of Control



Helpful & unhelpful anxiety/stress

DID YOU KNOW?

A certain kind of stress gets you in the 'flow' of things.



FIND WAYS TO MANAGE PRESSURE AT
victoria.ac.nz/wellbeing





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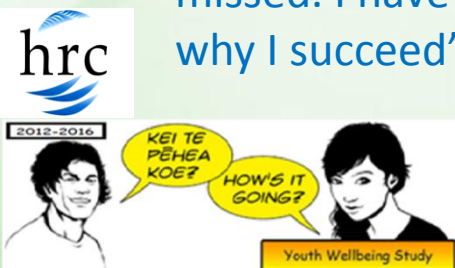


What is Resilience?



Resilience: Developing capacity to cope through adversity

- ***Resilience is being able to cope with stress, challenges and catastrophe, and being able to bounce back after difficult times.***
- “Only to the extent that we expose ourselves over and over to annihilation can that which is indestructible in us be found” – Pema Chodron
- “Inside of a ring or out, ain’t nothing wrong with going down. It’s staying down that’s wrong” – Muhammad Ali
- “I have missed more than 9000 shots in my career. I have lost almost 300 games. On 26 occasions I have been entrusted to take the game winning shot...and I missed. I have failed over and over and over again in my life. And that’s precisely why I succeed” – Michael Jordan



What makes someone more resilient?

- Research with children and youth faced with adversity (e.g. effects of war, poverty, natural disaster) indicate several factors are linked to successful adaptation (resilience):
 - Being able to regulate emotions
 - Effective attachment behaviours
 - Positive self-esteem
 - Optimism
 - Altruism
 - Active coping style when facing a stressor
- Other factors: Having a clear and firm set of core moral principles (guiding compass); seeking models of successful coping behaviours in others.

(Bell, 2001; Masten & Coatsworth, 1998; Richardson, 2002)



Relationship between Anxiety & Resilience

- Anxiety and stress can present an opportunity for learning, self-discovery, and the development of emotion regulation skills. Overcoming adversity aids self-esteem, and provides experiences someone can draw upon in the future to sustain them through hard times.

And...

- Anxiety and stress can deplete resilience if over and above the level someone has the skills and means to manage.

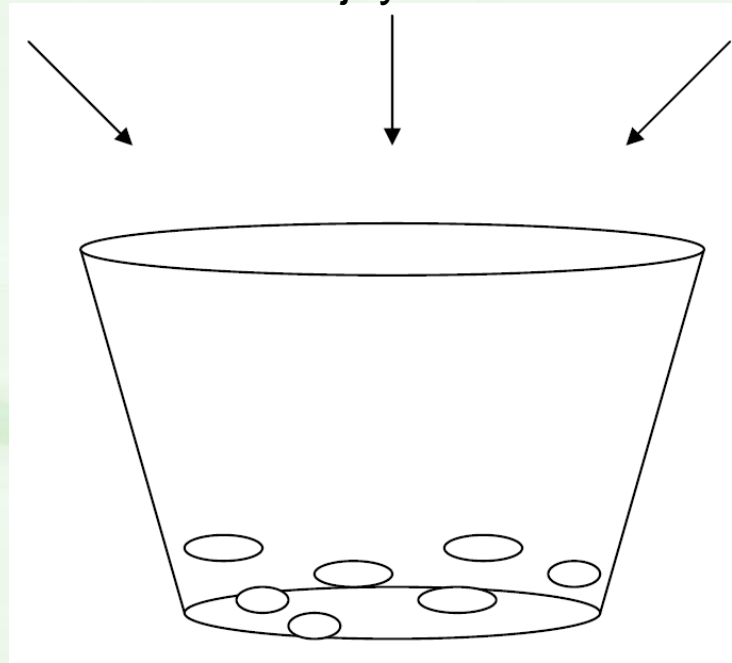


Anxiety/Stress and the depletion of Resilience

Bucket model of resilience

Resilience increases with things that help you cope...

Relaxation Enjoyment Social support



...and decreases due to stressors that drain your resources

(Taken from New Zealand defence force booklet on resilience)



Resiliency bucket

- What fills it up?
 - Opportunities for mastery
 - Healthy, supportive relationships
 - Health habits
- What creates holes and leads to resilience draining out? Can we plug these holes?
 - Knocks to self-esteem
 - Poor emotional or physical health
 - (Repeated) stressors



Related issues

- Mood
- Physical health; sleep
- Perfectionism
 - Positive perfectionism
 - Negative Perfectionism



Adolescence: Special considerations

- Brain still developing
 - Particularly pre-frontal cortex (personality + impulse control)
- Facade of invincibility...
 - Less experience with long-term consequences...
- Not having past experience to draw on..
 - ..to assist with decision making
- Identity formation : who am I?
 - Strength + certainty in knowing your values
- Individuation
- Developing sexuality
 - Loss of relationships/forming new ones
- Forming strong attachments/relationship
- Others..?



Managing Anxiety and Stress

- Identifying that there is a problem
 - Changes in mood?
 - Poor sleep
 - Negative self-talk
 - Engaging in less fun activities

Knowing the Early Warning Signs for your child; (shared) planning for what to do if you notice these signs



“Stress busters”

- How you think about the demands upon us (because our thoughts drive our stress response)
- Resilience
- Lifestyle – activity, diet, coffee/alcohol, sleep





Eating good, and stress

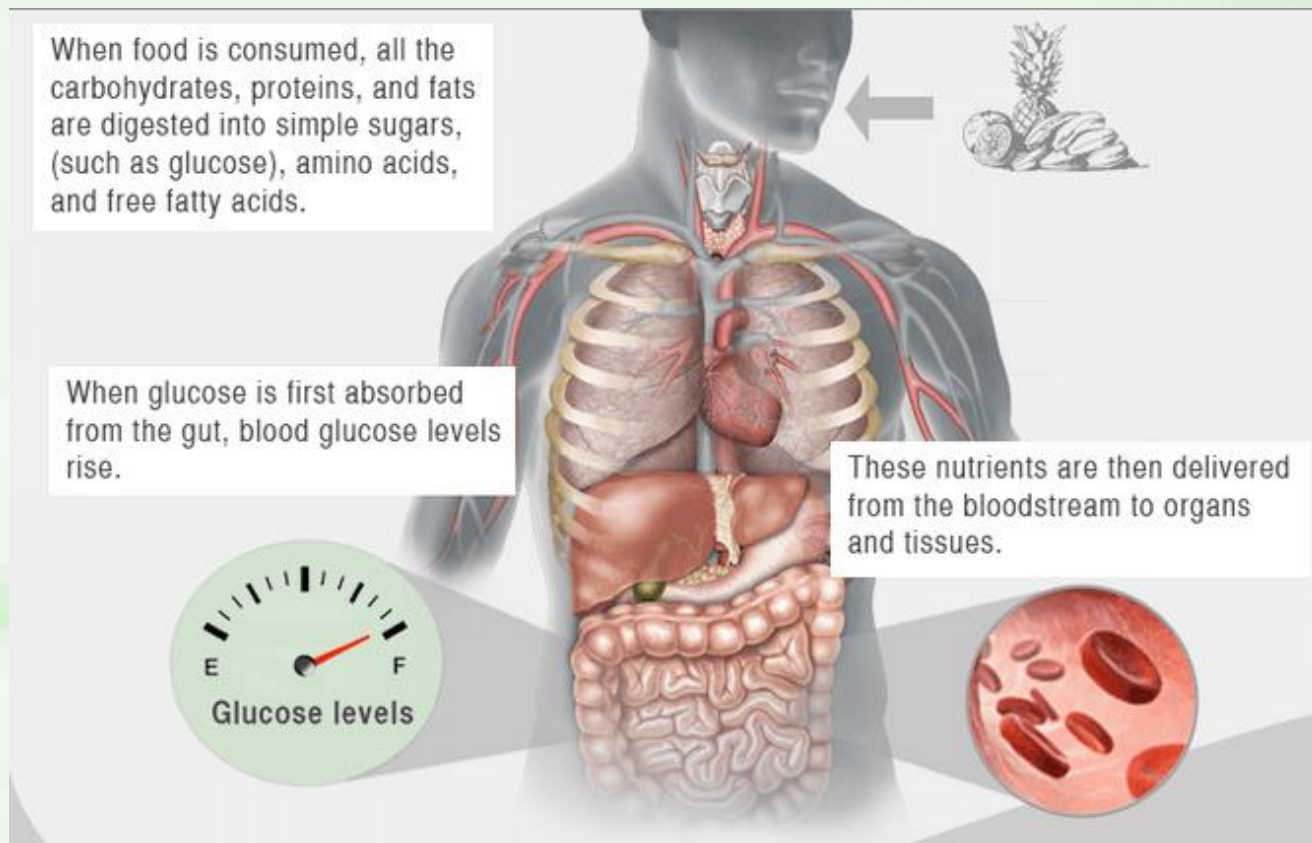
Ironically, this cartoon predates
the actual tiger attack on Roy
Horn in 2003



Why don't people eat good?



Why should we eat good?



From: <http://theconversation.com/health-check-the-science-of-hangry-or-why-some-people-get-grumpy-when-theyre-hungry-37229>



Why should we eat good?

Why does your brain need energy?



<http://www.wired.com/2014/07/everything-you-need-to-know-about-the-10-brain-myth-explained-in-60-seconds/>



Why should we eat good?

2-3% of your body weight...

25% of circulating glucose...



<http://www.wired.com/2014/07/everything-you-need-to-know-about-the-10-brain-myth-explained-in-60-seconds/>

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 • Increases endurance • Increases concentration and improves reaction speed • Stimulates the metabolism

Nutrition Facts

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Nutrition Facts

Serving Size 1 Can

Amount Per Serving:

Calories 110

	% Daily Value*
Total Fat 0 g	0%
Sodium 200 mg	8%
Total Carb. 28 g	9%
Sugars 27 g	
Protein less than 1g	

Niacin 100% Vitamin B6 250%
 Vitamin B12 80% Pantothenic Acid 50%

Not a significant source of sat. fat, cholest., fiber, vitamin A, vitamin C, calcium and iron.

* Percent Daily Values are based on a 2,000 calorie diet.

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A note on willpower...



“Hangry?”

THE WALL STREET JOURNAL

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So if self-control requires energy (and therefore glucose), can researchers trace the brain’s struggle to control aggressive impulses by looking for low glucose levels? Brad Bushman of Ohio State University and colleagues explored this issue in a paper published recently in the Proceedings of the National Academy of Sciences.

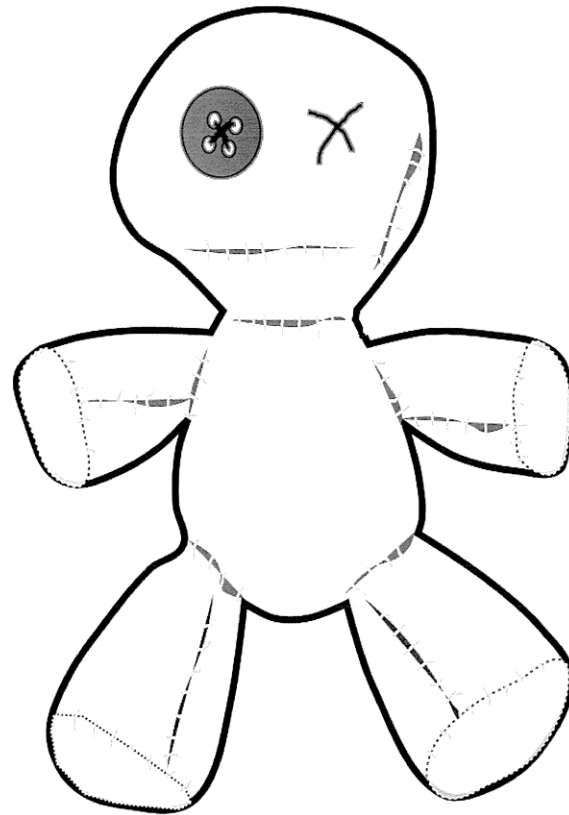
Volunteer married couples had their blood sugar levels monitored daily for weeks. Each evening participants rated the level of any anger they were feeling toward their spouse. Subjects indicated their level of anger through the number of pins they’d put into a voodoo doll representing their spouse. The unorthodox measurement technique showed that when blood glucose levels were lower, people tended to stick in more pins.

Does this relationship between glucose levels and aggressive impulses translate into person-to-person behavior as well? Couples, seated in different rooms, next played a competitive computer game that ended with the loser getting a blast of unpleasant noise. Participants would decide how loud a noise their spouse would be pummeled with—up to 105 decibels. Once again, the lower the glucose levels, the louder and longer the noise inflicted on loved ones.

We can draw various lessons from these results. First of all, spouses should probably eat chocolate before tense discussions (unless it’s a discussion about someone cheating on their diet). More broadly, the effect of low blood glucose on willpower and judgment fits into a larger story about how stress has the same bad effects (and disrupts its frontal cortical function) when it comes to violent behavior as well. The largest lesson is that who we are and what we do must always be considered in the context of the biology occurring inside us.

<http://www.wsj.com/articles/how-the-brain-uses-glucose-to-fuel-self-control-1417618996>





Imagine this is your boyfriend or girlfriend, or maybe parent, flatmate, or someone else you see a lot.

Take a few moments to think about them, and your most recent interaction with them.

Now, imagine I've given you 10 pins that you can stick into them, to show how annoyed, frustrated, angry, you are with them right now – more pins means more grrr. Put a cross on the diagram for each pin you'd stick.

Oh, and on a separate issue:

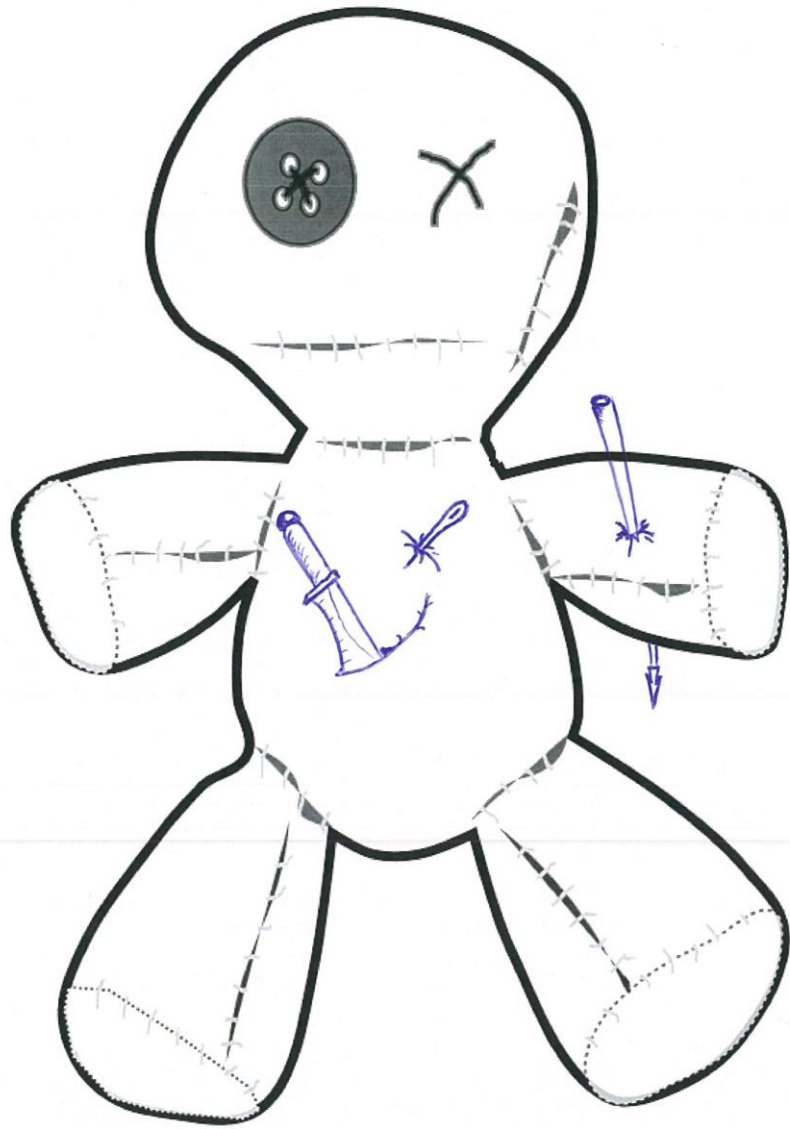
- did you have breakfast this morning?

No Yes

- did you have lunch today?

No Yes

*(Fasting for games lol)
& I'm fucking famished though)*

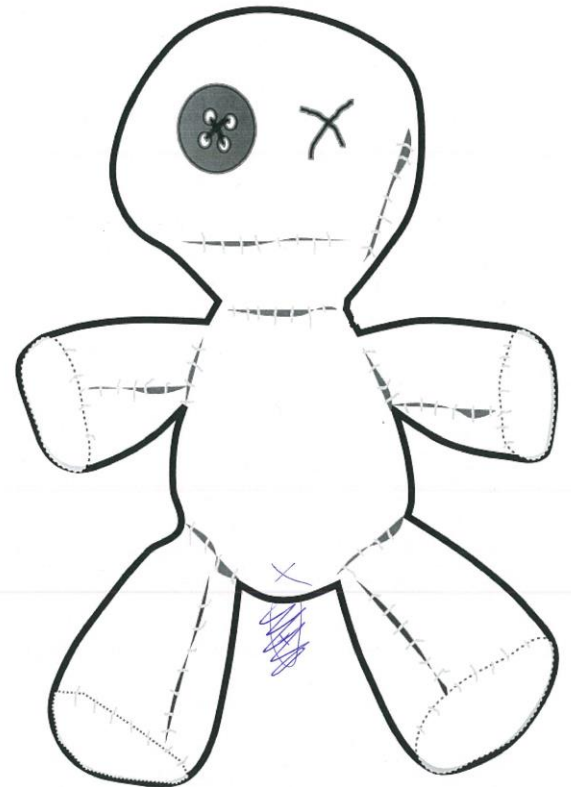
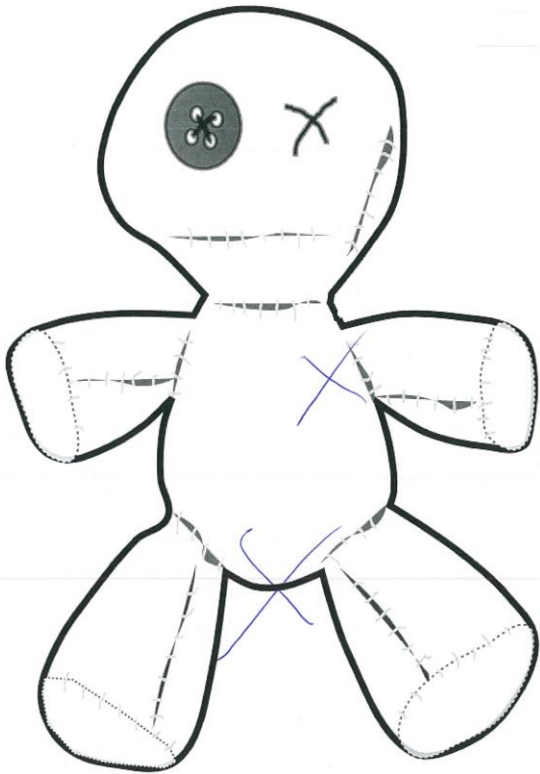


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Psych
lecturer
(KIDDING)



Imagine this is your boyfriend or girlfriend, or maybe parent, flatmate, or someone else you see a lot.

Chart Title

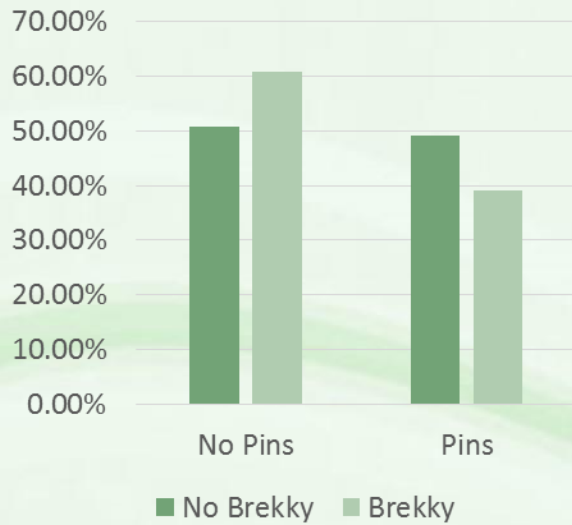
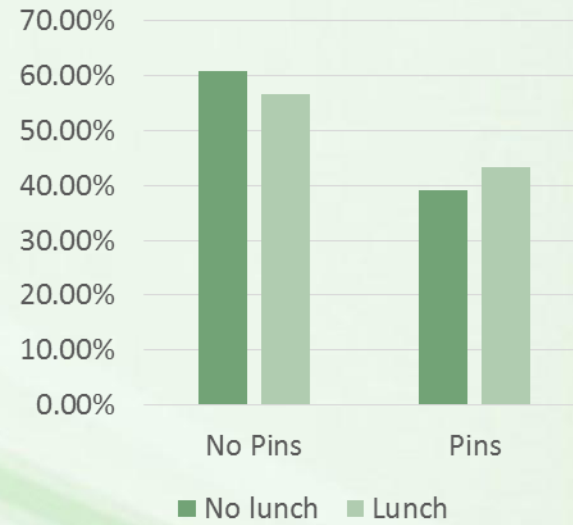


Chart Title



“Hangry?”

Hunger, anger, and glucose levels

How lower glucose levels can make you hangry

When food is consumed, all the carbohydrates, proteins, and fats are digested into simple sugars, (such as glucose), amino acids, and free fatty acids.

When glucose is first absorbed from the gut, blood glucose levels rise.

These nutrients are then delivered from the bloodstream to organs and tissues.



As time passes, the blood glucose levels start to drop.



The brain is critically dependent on glucose. And if blood glucose levels fall far enough, the brain perceives it as a life-threatening situation.



Lower blood glucose levels can make it harder to concentrate and do simple tasks. It can also make it more difficult to behave within socially acceptable norms.



Hunger, anger, and hormones

How hormones can make you hangry

If your blood glucose levels fall past a certain threshold, the brain sends instructions to several organs to synthesise and release **hormones** that increase the amount of glucose in the bloodstream.



The pituitary gland, located in the brain, produces growth hormone.

The pancreas produces glucagon.

The adrenal glands produce adrenaline and cortisol.

Remember stress?



Pituitary gland



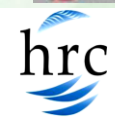
Pancreas



Adrenal glands

theconversation.com

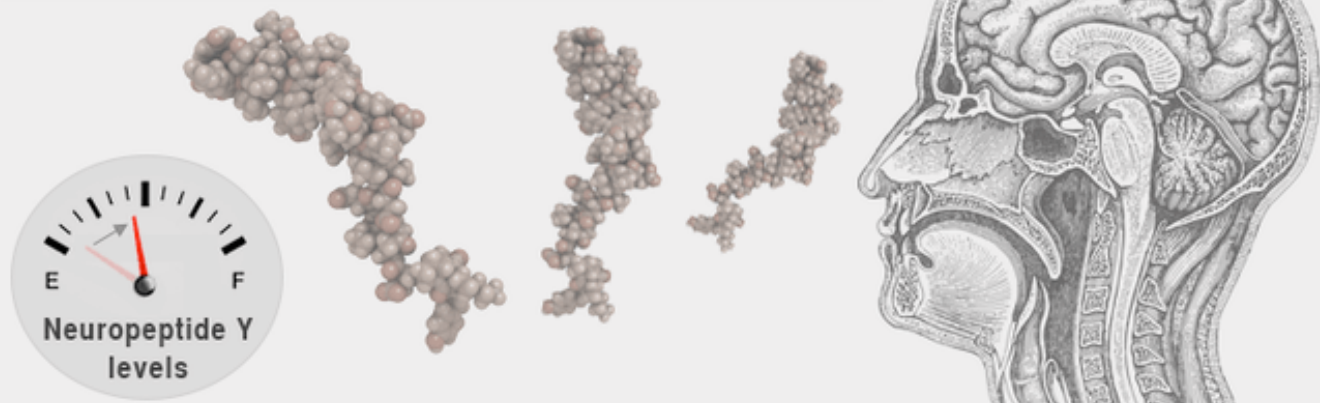
Graphic elements sourced from shutterstock.com



Hunger, anger, and neuropeptides


How chemicals in the brain can make you hungry and hangry

When nutrient levels drop and the body gets hungry, the brain releases a chemical called **neuropeptide Y**.



Neuropeptide Y has several functions, including increasing food intake. It is produced in various parts of the brain, including the hypothalamus, and acts on a variety of receptors, including the **Y1 receptor**.

This increase in neuropeptide Y increases appetite and is thought to produce an associated change in aggression and aggressive behaviour.

 theconversation.com

Graphic elements sourced from shutterstock.com

 hrc



TE WHIARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI
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The pizza and cookies experiment

Recent research by Janet Polivy and colleagues at the University of Toronto is a good example ([Polivy et al., 2010](#)). They invited participants to a study, some who were dieting and others who weren't. They were all told not to eat beforehand and then served exactly the same slice of pizza when they arrived, then asked to taste and rate some cookies.

Except the experimenters didn't much care how the cookies were rated, just how many they ate. That's because they'd carried out a little trick. Although everyone was given the same slice of pizza; when it was served up, for some participants it was made to look larger by comparison.

This made some people think they'd eaten more than they really had; although in reality they'd all eaten exactly the same amount. It's a clever manipulation and it means we can just see the effect of *thinking* you've eaten too much rather than *actually* having eaten too much.

(Google “PsycBlog what the hell”)



Sooo...

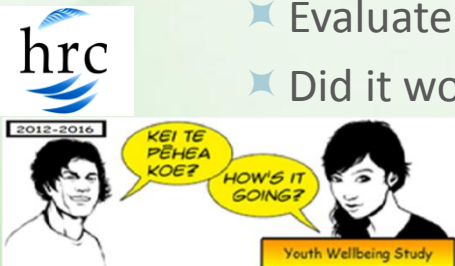
If you shouldn't have too much sugary drinks, Red Bull, alcohol, fatty foods, etc, what should you eat?

- Don't try to be perfect, try to be good...
 - Remember willpower?
 - “What the hell...”
- Acquisitional, rather than inhibitional, goals...
- Involve others and plan ahead...
- Set a timer!



Managing anxiety and stress

- Know what works for you
 - Talking to someone
 - Exercise
 - Relaxing
 - ✦ Music; Reading
 - Creative outlet
 - ✦ Writing; Poetry; Artwork
 - Problem solving
 - ✦ Identify the problem
 - ✦ Brainstorm solutions
 - ✦ Rank solutions based on anticipated outcome
 - ✦ Follow through with solution
 - ✦ Evaluate outcome
 - ✦ Did it work? If not => back to brainstorm



Relaxation

- Breathing techniques
 - Diaphragmatic breathing
 - “Belly breathing” “Bubble breathing”
- Progressive Muscle relaxation
 - Tense and relax you muscle groups one-by-one
- Meditation
- Mindfulness
- Visualisation
- (Noticing tension – part of EWS)
- What do you find helpful?



Unhelpful thoughts

- Unhelpful ways of thinking
 - Mindreading
 - Jumping to conclusions
 - All or Nothing thinking
- Challenging unhelpful thoughts
 - What is the evidence of this thought? What's the evidence against this thought?
 - Is this a style of thinking I've fallen into? Does it represent an unhelpful thought pattern (see above types of thinking)
 - What might a friend say?
 - Is this a helpful thought? Choosing to 'buy' the thought or leave it on the shelf...



Expressing Emotion

- Developing emotion regulation skills
 - Identify and describe emotions (reduces their intensity)
 - Acceptance of emotional experience (rather than fighting it)
 - Learn what factors lead to emotional vulnerability (e.g. 'hanger')
- Encouraging emotion language in your home
- What is the culture of emotional expression in your home?
- Mood diary (monitor positive and negative triggers)
- Thankfulness journal
- Mood shifters
 - Movies/ YouTube clips
 - Photos
 - Quotes



Managing Behaviour

- What types of unhelpful behaviours does your child or rangatahi engage in when stressed?
- Reward systems:
 - Praise desired behaviour/ effective stress management
 - Praise insight when they choose to engage in healthy behaviours even though they don't feel like it.
- Engage in discussion
 - Does this behaviour help them? In the short term? In the long term? What life goals or values does it get in the way of (if the behaviour is unhealthy)?



Self care

- Self care box
- Important factors for self care
 - (balanced) Exercise
 - (balance) Food
 - Sleep hygiene
 - Limits/set boundaries
 - Being able to say no
 - Assertiveness
 - When..... (you follow me when I'm angry)
 - I feel... (even angrier!)
 - I would like.... (you to give me space to calm down..)



“Just In Case Plan”

- Used in relapse prevention in therapy
- Helpful for everyone!
- Can include
 - What I’m like when I’m well...
 - Social? Active? Regular sleeping patterns?
 - What helps keep me well?
 - Activities
 - People to be around
 - Things to avoid
 - What I’m like when I start to get stressed...
 - Wake regularly at night? Start skipping meals?
 - What helps when I’m stressed
 - Talking to X? Taking the dog for walks?
 - Who can remind me of these helpful strategies
 - Make an agreement + plan when things are going well (if possible)
 - Who can help me notice my EWS – what can they say when they notice?
 - (as above)
 - Contact details of support people, agencies, etc.



Fostering Resilience

- Make connections (to foster social support; identify role models)
- Avoid seeing crises as insurmountable problems
 - Challenges to be overcome and learn from
- Accept that change is part of living
- Move toward your goals
 - SMART goals (**S**pecific, **M**easurable, **A**chievable, **R**ealistic, **T**imeframe).
- Take decisive actions (rather than time passing an decision made for you)
- Discuss values, and how these are enacted day-to-day
 - Part of self-concept; self-esteem
- Look for opportunities for self discovery
 - What can adversity teach us about ourselves
- Nurture a positive self-esteem
- Maintain a helpful outlook – develop optimism



What can be done..

- Teachers
 - Messages about achievements – praising effort
 - Scaffolding to students level
 - Recognising achievement – verbal acknowledgement
- Parents
 - Scaffolding – graded praise for increasingly more difficult challenges over time. Starting small and praising big.
 - Developing insight
 - Talking through the skills used to tolerate distress after/whilst overcoming a stressor.
 - Go through what fosters resilience and what saps resilience
- Friends
 - Group challenges; Social support



Managing your own reactions and stress

- We can also apply to following as adults!
 - The 'Just in Case plan'
 - Knowing our early warning signs
 - Self care
 - Modelling



In closing...

- Self-care
- Useful resources
 - “I’ve had it up to here. From stress to strength” by Gaynor Parkin and Sarah Boyd, 2008, Consumer NZ
 - ‘Learned Optimism’ by Martin Seligman
- Youth Wellbeing Study
 - Contact us on youth-wellbeing@vuw.ac.nz
 - <http://www.victoria.ac.nz/psyc/research/youth-and-wellbeing-study>



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Acknowledgements

- Deb Wakelin (guidance counsellor) for organising this presentation, along with other staff at Kapiti College.
- Kapiti College for hosting this evening
- Health Research Council of New Zealand
- Participants who contributed to the research underpinning the information presented this evening
- Participating schools and pastoral care staff involved in the YWS

