

EXTRACT FROM THE CBTANDFEELINGGOOD.COM WORKBOOK - © VERONICA WALSH Understanding Fight or Flight (our physical response to stress)

Evolution produced us: today's fabulous human beings. But... there are a few design flaws. And some primitive responses we've been saddled with that often do more harm than good these days. But we can learn to understand and control them with CBT...



What is 'fight or flight'? When we **perceive a threat**, our bodies go into 'fight or flight' mode in an instant – this physical response was developed during evolution to help us survive the sabre-toothed tiger, or that troublemaker that was trying to oust us from the tribe, or indeed anything that threatened our survival.

“Fight or flight is an instant pumping up of our bodies (with a series of physiological changes) that better equips us to fight hard or run fast from ‘danger’ – it prepares us for extreme physical action in an instant.”

Here are a couple of examples that will explain the immediacy and effects of fight or flight:-

- You walk over to your lovely bowl of fruit. Reach in, and... ‘OH! a big SPIDER! EEK’. The natural reaction is to jump back – our bodies instantly revving into fight or flight, our hearts thump, our stomachs tighten into a knot etc. But within a few moments, we (well most of us) realise there is no extreme danger here – and our bodies return to a natural balance very quickly.



- You're in bed. You're woken by a crash sound somewhere in your home. A BURGLAR!?! You are instantly alert – you spring up, tilt your head back, eyes focussing in the middle distance for danger, ears straining to hear what's going on, your heart pumping and lungs expanding to take more oxygen, heat rising in your body, ready to take whatever action is required (this can include 'freezing' which protected us from notice of predators etc)... then your flatmate shouts in 'sorry, only me, I dropped a plate'. Deep sigh as your body returns to balance and calms down...

Those are examples of real practical problems that would *benefit* from fight or flight... after all, if you had to deal with a giant tarantula or a violent intruder, you would make good use of your body in its prepped and revved up state, right? And in both cases, within a very short time, we realise there has been a *mistake in processing the event*, an 'irrational cognition', and our body returns to balance (homeostasis) very quickly. But many of us fight 'invisible tigers' constantly – imagining dangers and threats where there are none, which brings on our flight or flight even when there is no real danger present. This is at the very least uncomfortable, and at worst results in regular panic attacks and ongoing physical illness.

So... **danger is often psychological rather than physical**. Situations only bring on 'fight or flight' if you *perceive* them as dangerous - it's often not the situation itself (an interview, public speaking, a party, being chatted up, etc) that makes your body sick and shaky, it's how you think about it. We can use CBT to recognise that our thinking causes us to see these metaphorical tigers – and we can learn healthy new thinking that banishes them and lets us relax and enjoy our life and opportunities and experiences.

But... for the purpose of this exercise – let us just look at **the physiology of fight or flight** here – as it is shown to help people better manage the situation if they understand, scientifically, exactly what is happening and why. Understanding that fight or flight is a natural bodily reaction with a beginning, a

middle and an end – and that it is actually a sophisticated elaborate chain developed to help and protect you – can be hugely helpful. This learning can make it so that it happens less often and with less ferocity.

If you have anxiety (or are a ‘worrier’), the chances are that you are fearful of many things, with the flight or flight hormones constantly simmering within, which may cause general fatigue, confusion, and ill health – this would also contribute to self-limiting decisions and behaviours, and would of course reinforce a negative view of the world.

We can challenge and relearn our behaviour and responses to stress triggers by restructuring our thoughts in a more rational and healthy way – but we also need to be aware of why we are physically feeling the way we are – this can help us to stave off panic and remain reasonably calm.

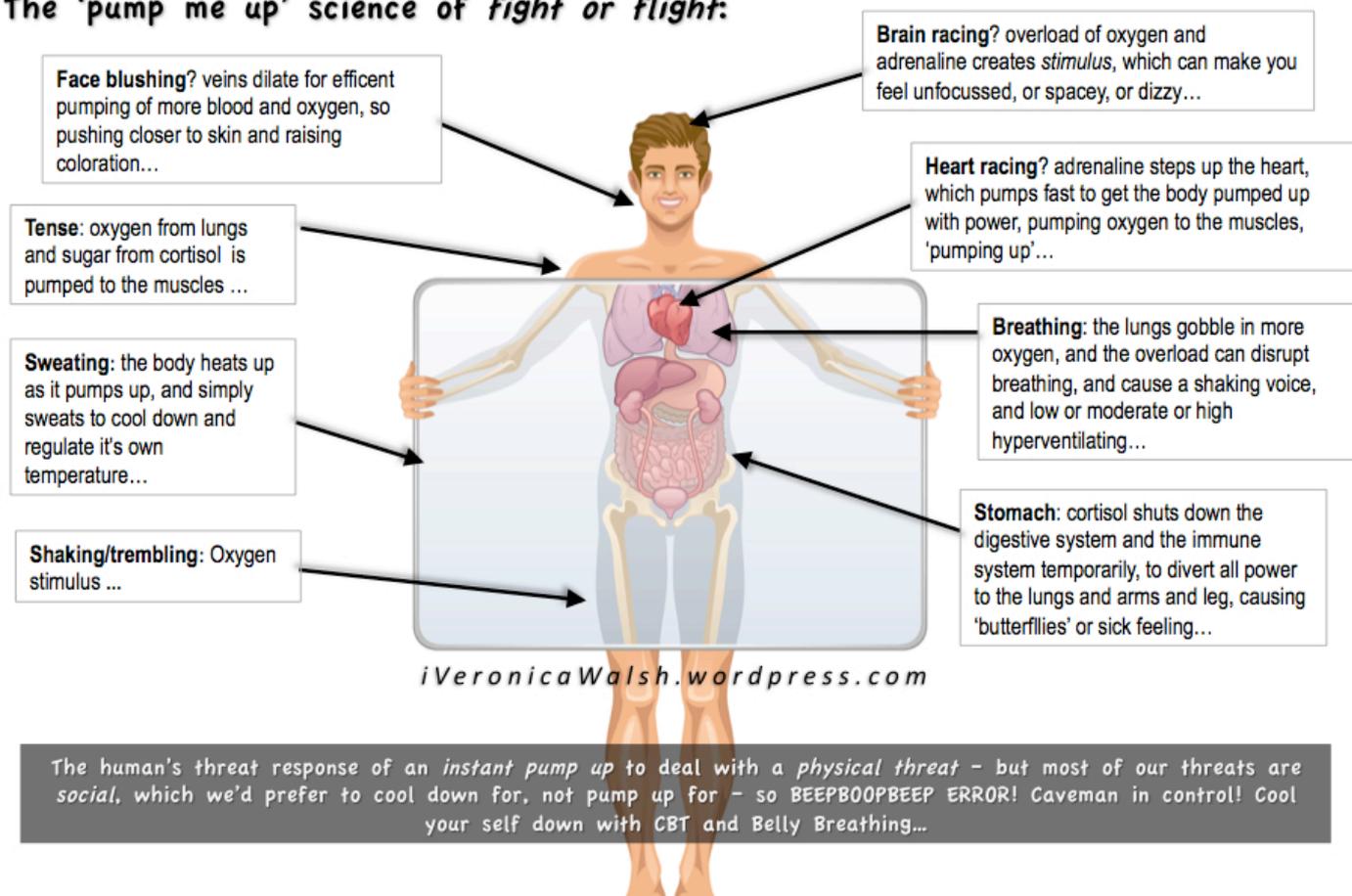
Task: draw a silhouette of a body and ‘arrow’ physical symptoms you’ve experienced

(Flip-chart exercise)



... so here’s the snapshot science of what’s happening:

The ‘pump me up’ science of *fight or flight*:



- **Thoughts racing and disjointed** – caused by an adrenaline release.
- **Dizzy / lightheaded** – due to adrenaline and increased oxygen levels.
- **Surroundings seem distant or visual ‘tunnel’** – your pupils dilate to allow you to take in as much visual information as possible. Eyes refocus to the distance to spot danger.
- **Heart pounding** – The heart starts beating faster to increase circulation, since the body anticipates it will be working harder to service the muscles.
- **Difficulty breathing** - the lungs throat and nostrils open up to flood the lungs with enough oxygen to keep up with the increased circulation of blood (re-oxygenating it) – this can trigger shallow rapid breathing.
- **Neck and shoulder tension** – caused by oxygen pumping to muscles/after effects as oxygen reduces.

- **Blushing** – Adrenaline causes your blood vessels to dilate in order to improve blood flow and oxygen delivery. As a result, the veins in your face dilate, allowing more blood to flow through them.
 - **Sweating** – The body heats up because it is working harder to circulate blood. And then sweats so it can cool itself down / regulate temperatures.
 - **Butterflies/'sick' feeling** – Cortisol shuts down your digestive system, (as it is not needed to fight or run), redirecting blood to essential systems such as the heart, lungs, legs and arms. This can also cause *irritable bowel syndrome, nausea and diarrhea*
 - **Dry Mouth** - Cortisol shutting down inessential systems reduces saliva in the mouth.
 - **Need to urinate (and maybe even pass a stool)** - The bladder and bowels may open out to reduce the need for inessential internal actions (and faeces & urine may have put off our attackers)
 - **Trembling, wobbliness, tingling and shaking** – effect of adrenaline stimulus and oxygen overload.
 - **Tightness in the chest and throat, difficulty breathing** – the body is overloading on oxygen – which is dangerous if you do not burn the extra oxygen off. Therefore the body tries to reduce the levels by constricting the chest and the lungs, reducing breath intake...



Task: match the previously arrowed symptoms to the above points and see 'what's happening?'

Memorise the things that happen and why... expect them, understand them, respect them, let them pass....

“YEAH YEAH... BUT, WHAT WILL I DO?!”

It is common that some people feel even more anxious and scared when these physical effects of fight or flight kick in (they start out feeling anxious about the situation, then they get the physical symptoms and are freaked out by them as well – which accelerates and amplifies the symptoms up to an actual ‘panic attack’). For some, it becomes **the fear of the physiology itself that causes a major and ongoing social fear issue** – the threat response becomes the threat. Meta headwreck. (We don’t want anybody to see us blushing, sweating, breathless, shaky). But remember it has a beginning, middle and end.

Attempting to ‘fight’ against the physical manifestations of anxiety almost always has the opposite effect and intensifies them. The term panic attack itself is pretty stupid, nothing is attacking you, and there’s no reason to panic. It’s just a brain design flaw, you’re pumping up inappropriately – cool yourself down. Try to simply let the symptoms ‘happen’ while you breathe them down– try to ‘observe’ outside of yourself... tell yourself what’s happening to your body and why – **example:**

“This sweating is simply my bodies way of regulating it’s temperature as it’s overheated because I’m scared of this situation and I’ve gone into fight or flight - it will stop as soon as I calm down - I’ll breath in and out slowly and deeply... I am ok, it’s a nuisance, but I can cope, I’m ok...”

Summary: what is happening with a person who reacts with anxiety and inappropriate physical symptoms is that their body is reacting to the situation as if were as dangerous as, say, a tiger or lion approaching to tear them apart. A false perception has occurred, triggering a very basic and automatic response. We can learn to challenge our perception of events, and because the fight or flight response occurs only when we perceive danger, it can be avoided or minimized if we can convince ourselves there is nothing to fear.

We can challenge and relearn our behaviour and responses to stress triggers by restructuring our thoughts in a more rational and healthy way with CBT – but we *also* need to be aware of how and why we are physically feeling the way we are – this can help us to stave off panic and remain reasonably calm.

Quick practical tips:

Belly breathing: because so many symptoms are caused by the overload of oxygen (rapid breathing physiology) – breathing control exercises are hugely helpful in easing them. *You can link audio of a breathing exercise on my blog and website.*

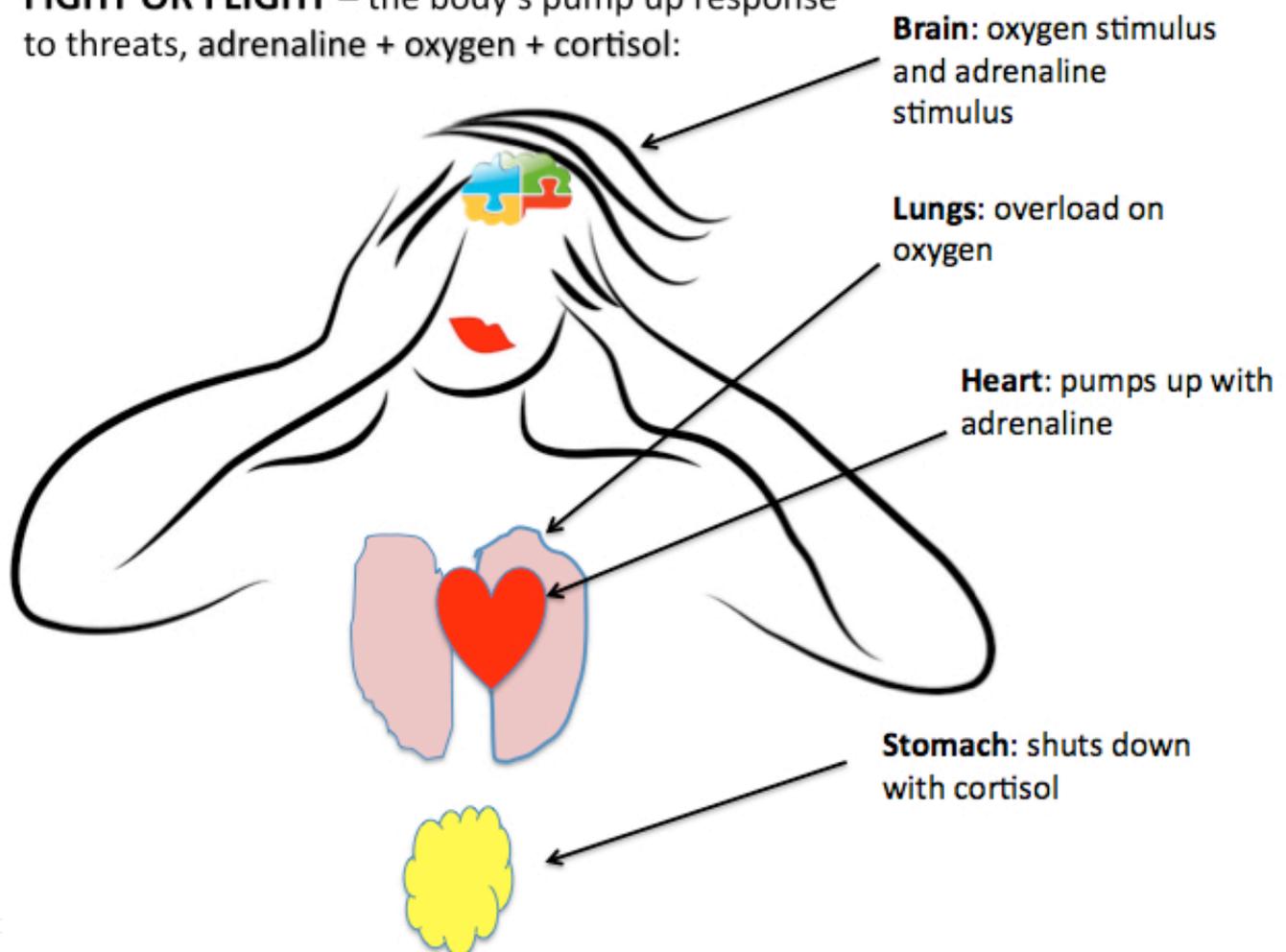
Cardio exercise – when you feel your body go into fight or flight jitters, do 5 minutes of physical exercise if possible in the environment you're in (run up and down stairs, do sit ups...anything cardiovascular, something that makes you sweat!). The body has primed itself for something physically dramatic (the fighting the tiger or running away very quickly..) – and if you stay immobile it will be confused and take longer to return to homeostasis – the exercise will restore balance more quickly.

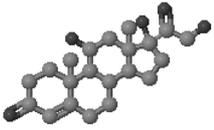
Relaxation – choose deliberately to do something you find relaxing (movie, book, candles and music, a walk in park, yoga, mindfulness, whatever) – the body has a 'relaxation' physical response, which releases chemicals that reduce stress hormones, this slows your heart rate and lowers blood pressure and relaxes muscles, returning you homeostasis (balance). *You can link to an audio Guided relaxation/breathing/visualization exercise on my blog/website www.CBTandFeelingGood.com.*

CBT – go to iVeronicaWalsh.wordpress.com for a free online resource guide to self help cognitive behavioural therapy – change your mind, change your mood. Reframe and you won't see things as threats – rational thinking skills can be learned and applied. Try it yourself.

Simple image of FoF, commit it to your memory, and manage your body:

FIGHT OR FLIGHT – the body's pump up response to threats, adrenaline + oxygen + cortisol:





BEWARE CORTISOL in fight or flight (the **stress hormone**, or the ‘*death hormone*’ as it’s scarily called!) - **Cortisol** is a hormone that gets secreted when we are under physical and/or emotional stress. No matter what the source of stress, cortisol is released into the blood stream to help us cope, **aiding our fight and flight response by putting sugar into the blood stream** so our muscles and

brain have the fuel needed to react.

Cortisol is generally high in the morning, but should subside by evening when our rest and repair system (parasympathetic system) is supposed to take over and return us to metabolic equilibrium (homeostasis). Or... at least that scenario is the appropriate stress response by the body – **BUT**, today’s lifestyles and challenges mean that more and more of us are in a state of high cortisol most of the time – as our system keeps us in a constant state of ‘readiness’ for the perceived danger/threat of our ‘stressors’.

This is very dangerous to our health as cortisol curbs functions that are not essential for fight or flight, which alters the immune system responses and suppresses the digestive system, the reproductive system and the growth process. The long-term activation of the stress-response system — and the subsequent overexposure to cortisol and other stress hormones — can disrupt almost all your body’s processes. This puts you at increased risk of numerous health problems, including:

Heart disease - Sleep problems - Digestive problems – Depression – Obesity (particularly depositing fat around our middle section) - Accelerated aging - Memory impairment – Skin problems – etc.

This is why it’s so important to learn healthy ways to cope with the stressors in your life to help the body return to hormonal balance! Exercise, relaxation, CBT, visualisation, a good diet, and reviewing how you live your life will all help... start today!

Last note: these physical symptoms are natural, and designed to help us. Awareness of this can reduce any negative amplification of fear and phobia, and teach additional ‘self-management’ using rational and calm consideration techniques. Think ‘wow, look what my body is doing – how amazing...’.



Relaxation and Visualisation techniques



It has been scientifically proven that visualisation and relaxation techniques can aid in relieving stress – **let’s sit back and listen to an audio recording of a relaxation script including visualisation methods... (you can link to this from my website!)**

Audio task: 15 minute relaxation and visual exercise (requires, lights off, shoes too if you wish!)

(THIS AUDIO IS ON MY WEBSITE AT CBTANDFEELINGGOOD.COM)