Tears of Letting the tears flow when watching a sad film

or celebrating at a wedding, can provide a vital emotional release. So let rip, says Dr Nicola Davies.

ETTLING DOWN FOR a cosy evening, I spotted that one of my all-time favourite weepies – It's a Wonderful Life – was scheduled on the telly. When that familiar music kicked in, my stomach fluttered, eyes prickled, and the lump in my throat started to swell. But instead of forcing it down, I let the tears flow, and felt all the better for it.

I'm not alone either. In a study where filmgoers were asked to rate their emotions after watching the tear-jerker Life is Beautiful, half of participants reported a long-term elevation in their mood as opposed to the other half, who weren't moved by the film and didn't feel boosted afterwards*.

But not all people find it easy to cry. A recent survey by mental health charity Mind found that one in six people thought that showing emotions was a sign of weakness. The charity's chief executive Paul Farmer, disagrees: 'Many of us lead busy, stressful lives and sometimes it can feel as if things are spiralling out of control. Although it might seem tempting to put on a brave face, we want to spread the word that it really is OK to cry.'

I cry, therefore I am

'Crying is a universal human phenomenon. Everyone cries,' says professor Gail Kinman, a chartered psychologist who has studied crying in the workplace. 'However, how it is perceived varies cross-culturally. Some cultures are much more accepting of it.' For example, while we in the West tend to be guite reserved with our tears even at funerals, in countries such as Uganda it's normal to hear people wailing.

It's not just our culture that determines our crying – gender plays a part too.'In the Western world, women cry 2-4 times

more often than men,' says Gail. In Arabic cultures and Southern European nations where men are expected to show their feelings, it is more acceptable for them to let the tears flow.

'Men tend to cry when they are emotionally overcome, rather than when they are distressed. It is

socially acceptable for a man to cry at sporting achievements or when a baby is born, 'says Gail.'On the other hand, women tend to cry through frustration and anger. It's a reflex reaction.'

Many of us can attest to this – feeling the tears well up because something just won't go right, or after being on the receiving end of some spiteful words.

One reason why crying is generally seen as more acceptable in women is the hormonal link. Prolactin, the milk

hormone, is excreted in emotional tears. Its main role is to stimulate milk production, but it builds up whenever vour oestrogen fluctuates during pregnancy, menstruation or menopause. This means crying comes more easily to women as our bodies' hormones attempt to get rid of the build-up and to rebalance themselves. Testosterone, on the other hand, which men have more of, inhibits prolactin.

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socket, underneath the outer edge of your eyebrow, are your lacrimal glands. These are responsible for releasing fluid to protect, clean and nourish the surface of your eyes. This fluid comes in two types:

reflex tears, which protect your eyes from irritants, such as when chopping onions, and emotional tears, which help you release overwhelming emotions.

There is also a third type of tear: basal tears. These keep your eyes moist and infection free. They originate from different glands, located under your eyelids, and with each blink they lay a little film of moisture over your eyeballs. These are the tears that on a windy day, will end up streaming down your face!

Each type of tear is made up of different'ingredients', according to Dr William Frey of the Ramsey Medical Center in Minneapolis, USA. Reflex tears are 98 per cent water and have a similar composition to salt water.

Emotional tears contain antibodies, oils and enzymes, such as lysozyme which is super-efficient in dealing with bacteria. As well as hormones, emotional tears also contain leucine enkephalin, a neurotransmitter that naturally acts as a painkiller during times of stress.

Celebratory tears

Crying often gets a bad rap for representing negative emotions, but

there are a multitude of happy times that make people reach for the tissues. For example, around 50 per cent of women cry at seeing a romantic proposal, and 73 per cent tear up at a wedding. And there are other happy events – finding your lost cat, having a house offer go through, seeing someone win on a TV talent show – that can cause that familiar lump in the throat and misty eyes. It all stems back to the fact that emotional tears are triggered by feeling overwhelmed in some way. But, whether you are ecstatic or relieved rather than angry or upset isn't registered in your hypothalamus. This is the area that sets off physical reactions such as when to run, when to

eat and, in this case, when to cry. Your hypothalamus – a tiny but vital part of your central brain - is triggered when it receives signals from an almond-shaped cluster of neurons called the amygdala. It can't tell the difference between the types of emotions, just that those emotions are running high, so the reaction to cry is the same.

While the reason for crying makes no difference in neurological reactions, aesthetically speaking, happy crying is an altogether more attractive affair. The average happy cry only lasts three minutes, compared to seven minutes of sad crying, so things such as facial redness, puckered brows, a runny nose and puffy eyes don't tend to factor. Tears

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HEALTH I EMOTION

of happiness are contagious and help improve a happy situation. It shows trust and promotes bonding, especially if the other person reacts appropriately,' says Gail.

So-called 'mirror neurons' (see p49 for more on this) in your brain are responsible for this phenomenon. When you recognise an emotion in someone, it triggers your neurons to signal empathy, so that the person you're with can see you understand how they are feeling. This is why seeing a loved one cry, through sadness or joy, can set off your own tears – you are in tune with them. You may even find the response is triggered when you identify with a character that cries in a film or book. 'It's part of sharing something special and becomes part of the experience,' explains Gail.

All of this means that people who experience high levels of empathy tend to cry a lot more than those who don't. They feel the pain and joy of others intensely, which is no bad thing.

A cathartic release

Whether happy or sad, tears are still worth celebrating. Not only are you entrusting other people with your emotions and bonding with them, but you're also sending out a signal that you need support.'Crying is often the first thing you do when you enter the world. It's a signal of need and distress,' explains Gail.'According to the Freudian notion of catharsis, to cry is beneficial, while to keep tears in is toxic. Just think about therapeutic crying - all counsellors have a box of tissues in their room. This shows permission to cry and that crying can help.'

When a loved one dies or a relationship ends, the first emotional release is often crying. 'Even "wallowing" can be good,' says Gail, who gives the example of a patient who went into a shop for the sole purpose of purchasing a load of sad The average films. She was going to happy cry only lasts watch them alone and cry because she needed the release after the death of three minutes her sister some months compared to seven minutes of

The theory behind this is that tears cried during heightened emotional states not only release the

hormone prolactin, but alo an adrenocorticotropic hormone (ACTH), which stimulates the release of the stress hormone cortisol. This is why after a good cry you feel a significant release of stress symptoms, such as muscle tension, limb heaviness, and anxiety.

> Some psychologists say that crying provides valuable learnings to store in our brains. For example, if we cry with remorse over

> > betraying a loved one or acting selfishly, our hippocampus stores the memory of this act along with the overwhelming emotions that caused us to crv.

association then acts as a marker to dissuade us from acting

sad crying.

It's believed this

similarly in the future.

Further positive effects of crying, however, depend on a number of factors, according to professor Ad Vingerhoets, author of Why Only Humans Weep: Unravelling the Mysteries of Tears (OUP Oxford). In research comprising 5,000 participants, he found that whether mood improves after crying depends on personality and how others react.'A depressed person seldom reports an improvement in mood,' he says. 'But the most important predictor of whether tears are therapeutic or not is how others react with irritation, or comfort.'

So, if you consider yourself an empathetic, otherwise cheery person, and you can find comfort in a likeminded friend or partner, feel free to let your tears flow when you're feeling overwhelmed. Better still, watch your favourite weepy film together. You'll be left feeling emotionally lighter, more relaxed physically, and perhaps even closer to someone you love. @

previously.