GRIEF- searching for a bit of solace in an everlasting instant

THE PHYSIOLOGY OF GRIEF

Trying to understand why we feel the way we feel. "Grief is a feral animal I have learned not to resist” Maya Stein. Grief is irrational

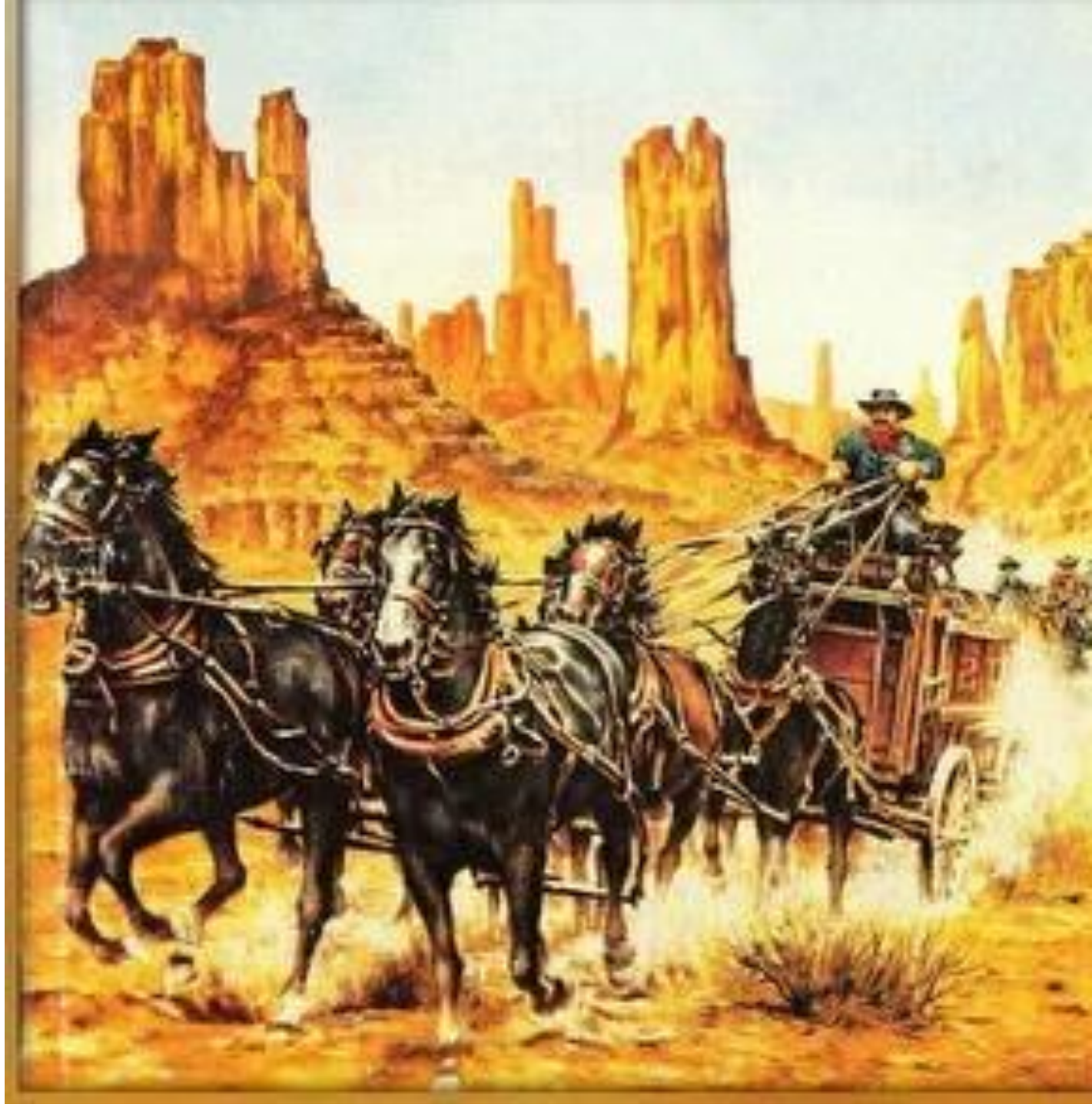
WHOSE INSIDE

- How long are they staying?

What are you afraid of?

Who is chasing you?

- What are your defenses?
- How many way-stations will you need?
- How will you know when you get there?
- Way-stations



Good Grief

- GRIEF IS A NATURAL UNIVERSAL RESPONSE TO THE LOSS OF SOMETHING YOU LOVED
- GRIEF IS A PERSONAL RESPONSE TO LOSS
- IT IS A PROCESS, NOT A STATE OF BEING
- MOURNING = THE OUTWARD EXPRESSION OF GRIEF

- Grief-- the emotional, cognitive, functional, behavioral response to the loss

- There are no stages of grief to go through
- Grief is not something you get over or want to get over
- Grieving is the process of changing grief over time
- Elizabeth Kubler Ross began work on grief in the 1960’s with the novel idea of talking to people. She described five things people commonly experience.
- Denial, anger, depression, bargaining, acceptance–I would add guilt. We don’t go through them in order, but we experience them. We don’t conquer or cure them. They don’t occur in isolation


If not stages- how about waves

What triggers the wave? HORMONES

- WHAT Triggers the hormones? First loss, then Memories,
- Imagine a small campfire-attached by multiple fuses extending from areas of the brain that detect smells, sounds (train whistle), visual memories, sensations, tastes, dreams –all can turn the little fire into a conflagration, flooding the body with the hormones of emotion
- The memories are little pilot lights that get turned to high in an instant, or the accelerator on your car suddenly pushed to max.
- A wave of confusing, contradictory emotions

THE MAJOR HORMONES OF GRIEF

- Epinephrine (catecholamines)- freeze, flee, fight, faint
- Cortisol (levels don’t change by ethnicity)
- Oxytocin
- Endorphin-- natural opioids’
- Testosterone, serotonin, dopamine, prolactin (post partum depression)
- Remember, all these hormonal effects at least initially are UNCONSCIOUS
- Acute trauma vs chronic
- Hormone effects over time
-

Evolutionary purposes of grief

- SURVIVAL---learning how to prevent loss from occurring again
- In the moment-maximal strength to minimize the loss, save the person from a burning building
- Latter-strategies to prevent the fire in the first place
- RESTORING COMMUNITY-- strategies to restore the equilibrium of the community after the loss occurs
- In older times survival depended more on individual strengths
- Now, we can not survive without community

Medical effects of grief-GRIEF IS

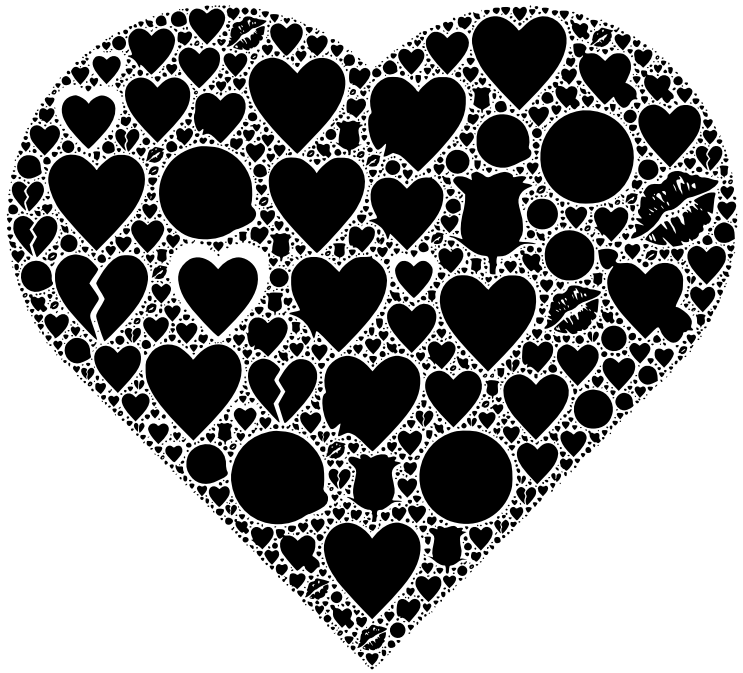
- After age 65 (widowhood) first year after death of spouse- male 70% increase in death rate compared to married peers-27% females
- Increase blood pressure, sympathetic tone (heart rate variability index), pro inflammatory, increased clotting, immune changes, cancer increases, ulcers, insomnia
- However, grief itself is not a disease we can or should cure
- However, being aware of potential complications makes sense
- Trying to minimize cardiac risk factors, lung disease, clotting risks. Being aware of these increased risks (diet, exercise, alcohol, etc)

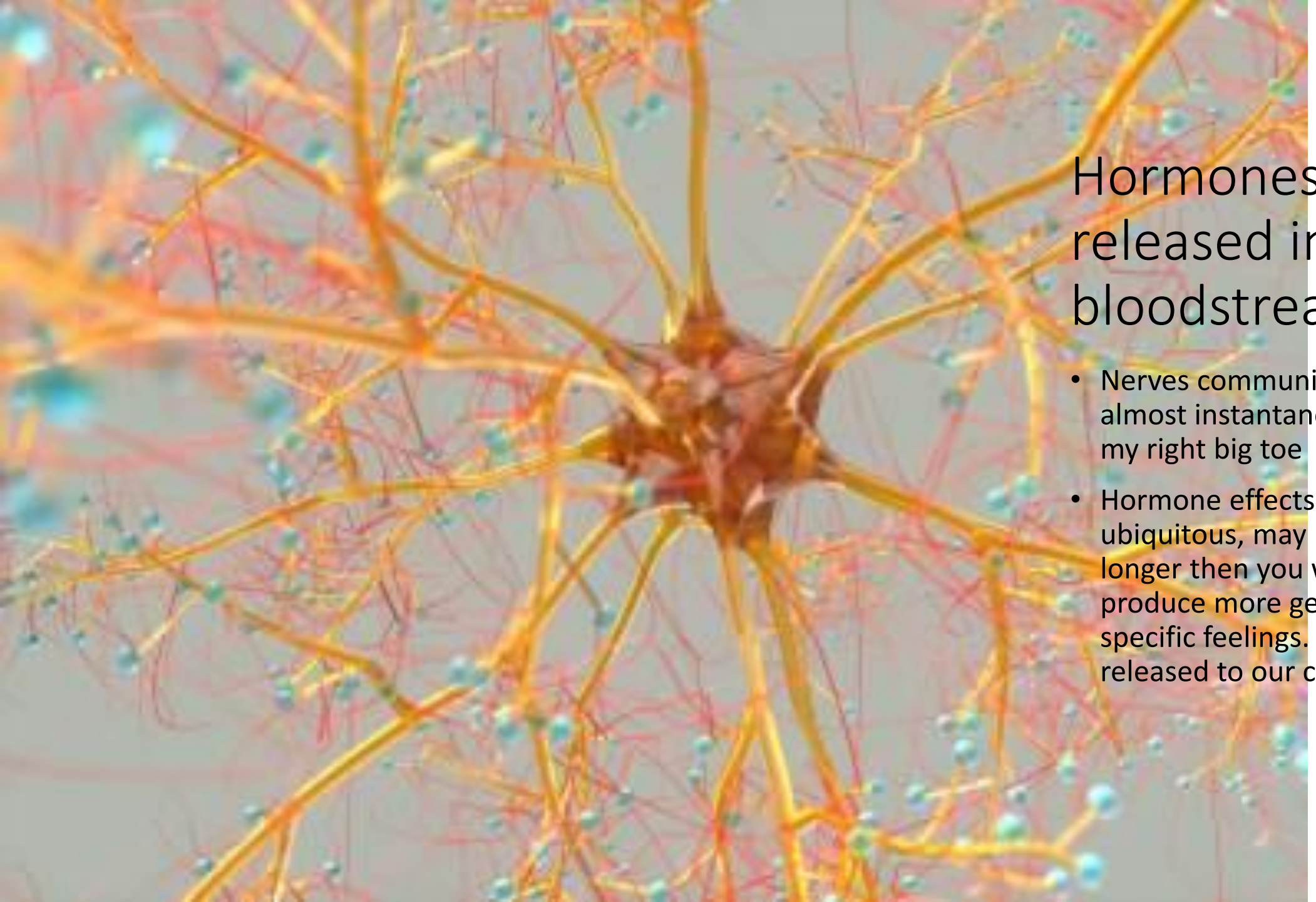
Dreams @ visions- or delusions@ Hallucinations

Little fires everywhere

- Emotions that can produce: a deep sense of longing, love, maybe anger, sadness, a sense of connection
- Maybe all at the same time
- The heart is strongly connected to the brain and has a cellular memory. 80% of autonomic nerves in heart go to brain 20% from brain to heart-HR variability

Heart enclosed in a web of complex emotion





Hormones are released into the bloodstream

- Nerves communicate – directly, almost instantaneously– raise my right big toe
- Hormone effects are delayed, ubiquitous, may hang around longer then you want and produce more generalized non-specific feelings. Little peptides released to our circulation

THE WAVE OF EMOTION IN GRIEF AND LOSS

- Includes: anxiety, fear, vulnerability, longing, plus a desire for connection
- There is a bond we carry with the thing we have lost, and without it there is a hole (Example: you played cribbage together all the time. You see a cribbage board and suddenly the fire ignites).
- There is this remarkable connection between love and grief. You can’t have one without the other.
- OVER TIME, GRIEF GETS SET OFF BY DIFFERENT INGREDIENTS. In divorce it might be the fights initially, and later the associations turn to good times, maybe trips, children, holidays etc.

Human tears

- Expressed in joy and sorrow
- Contain oxytocin, cortisol, serotonin: so far we can not predict differences in chemical make up between joy and sorrow
- Or how tears change over time
- Electron microscopic images show differences

PRE-EXISTING CONDITIONS

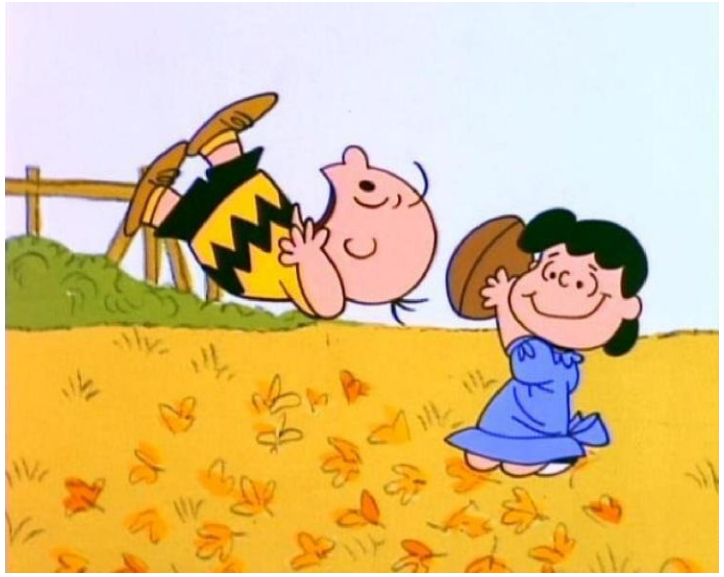
- Symptoms of pre-existing conditions will be exacerbated
- Mental illness (depression, drug abuse), loneliness
- Any underlying medical condition will tend to worsen under the physiologic stress of grief

PTSD when memories don’t change

Sometimes events are so traumatic we wall them off and don’t allow them to change

Without love there can be no grief

- We do not grieve without hope
- Often our loved one’s are teaching us how to love through grief
- The alchemy of love is an internal process involving both the heart and mind. Trust the process
- ‘We actually transform the world from within our hearts’
- Rainer Marie Rilke Jan 10, 1920
- Grief provides an element of immortality to your loss-a bit of solace in an everlasting instant
- Grief has no choice but to break a person’s heart



THE RELATIVITY OF TIME

- **Is it true? That time heals all wounds?**
- **Not in my experience**
- **Scars have a mind of their own**
- **Healing, or not, in their own sweet time**
- **Leaving their own indelible marks, uninvited tattoos**
- **Filled with their own taboos, unspeakables**

The Relativity of time

- Rattling over and over in our brains
- Like asteroids, broken off from their home planet
- Stuck in a forever orbit, alone, orphaned

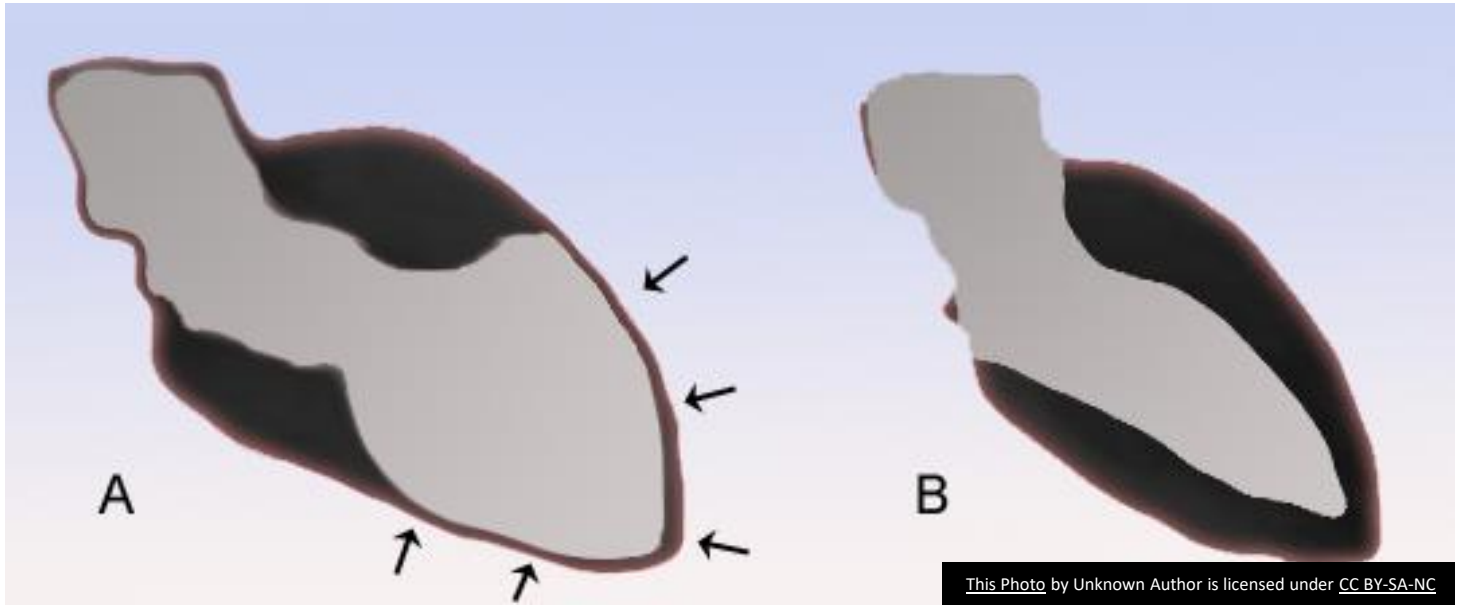
- Boredom makes time endless, however
- Some moments are so exquisite (like a grandson giggling)
- They become timeless
- And stay with us forever
- Appearing whenever our hearts need them most

The Relativity of Time

-
- AT LIFE’S BEGINNING, TIME SEEMS ENDLESS
- AT LIFE’S END, PRECIOUS
- MEASURED IN MOMENTS
- I AM HAVING THE TIME OF MY LIFE

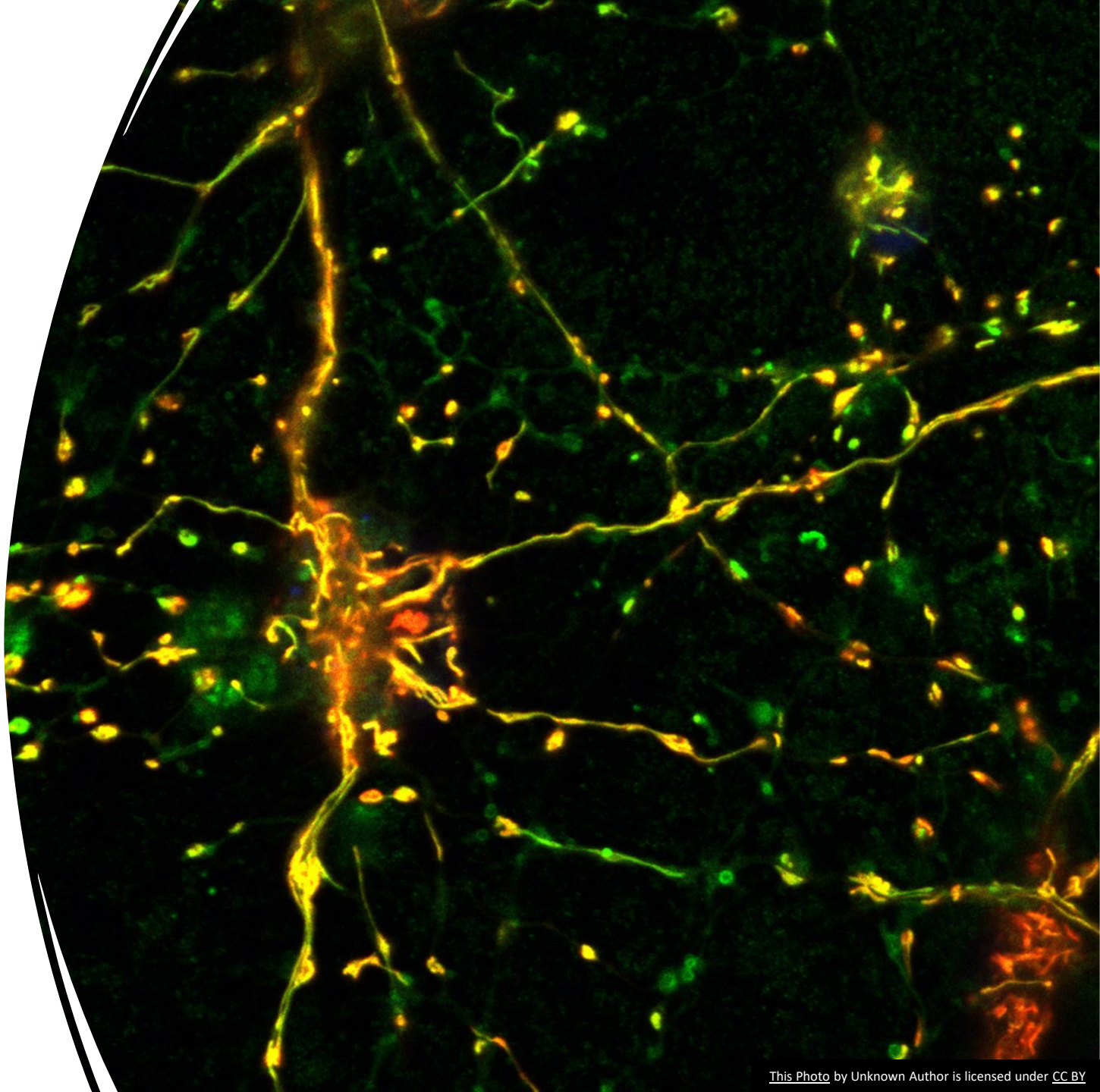
the broken heart syndrome

- If grieving doesn't change and the hormone levels stay high there are health consequences
- Hypertension, diabetes, immune disorders, heart disease
- Takotsubo heart. We can get over even this!



The cost of walling off unpleasant experiences

- It takes continuous energy to maintain the walls
- We lose the associated pleasant times, assuming there are some
- Memories naturally change over time as the associated memories change



Hormones triggered from the brain stem

- Cortisol (steroids) highest levels in the morning- lead to generalized activation of organs: Liver produces blood sugar for energy, muscles consume the energy, brain is alert.
- When cortisol levels stay high, as can happen in prolonged stress or grief we see complications like: fatigue, insomnia, diabetes, eating disorders
- Commonly used in medicine to treat: asthma, allergies (Medrol dose pac for poison ivy). It is the moderator of the immune system for multiple types of autoimmune disorders
- Endorphins - opioid like numbing substances

Brain memory (its own Siri)

- From the book The Grieving Brain, by Mary-Francis O’connor
- Brain has its own virtual road map. Its biggest function is predicting the future. Inhabitants importance on map based on place, time, and perceived closeness. How far away are they, how often do you encounter them and how emotionally close are you
- Brain struggles to replace a lost component. It will conjure up an image (memory) of whatever is lost, before it can believe it is actually lost. It triggers the five alarm fire of grief– Don’t forget mirror neurons

COMPLICATIONS OF GRIEF

- When as physician's, family or friends do we need to intervene.
- Remembering pre-existing conditions, and high rate of medical complications. We must take symptoms seriously
- Who is best person to help you sort your unique situation out
- Family, friends, primary care physician (Marcus Welby)
- Palliative care physicians can be a good resource. To palliate: to relieve symptoms in the setting of incurable disease. We look at pain, insomnia, fatigue, depression all the time and may have some good novel options for symptom management while you go through the grieving process. Tonglen meditation