



My Stroke Journey (so far)

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Nov 4, 2025

Topics

- Heart Attack & Ischemic Stroke – the connection
- Canadian statistics & useful info
- My strokes, pre-conditions
- My medical process
- Useful background medical/biological info
- My condition post-stroke (physical/mental)
- My ‘death cleaning’
- Changes in lifestyle – short term/long term

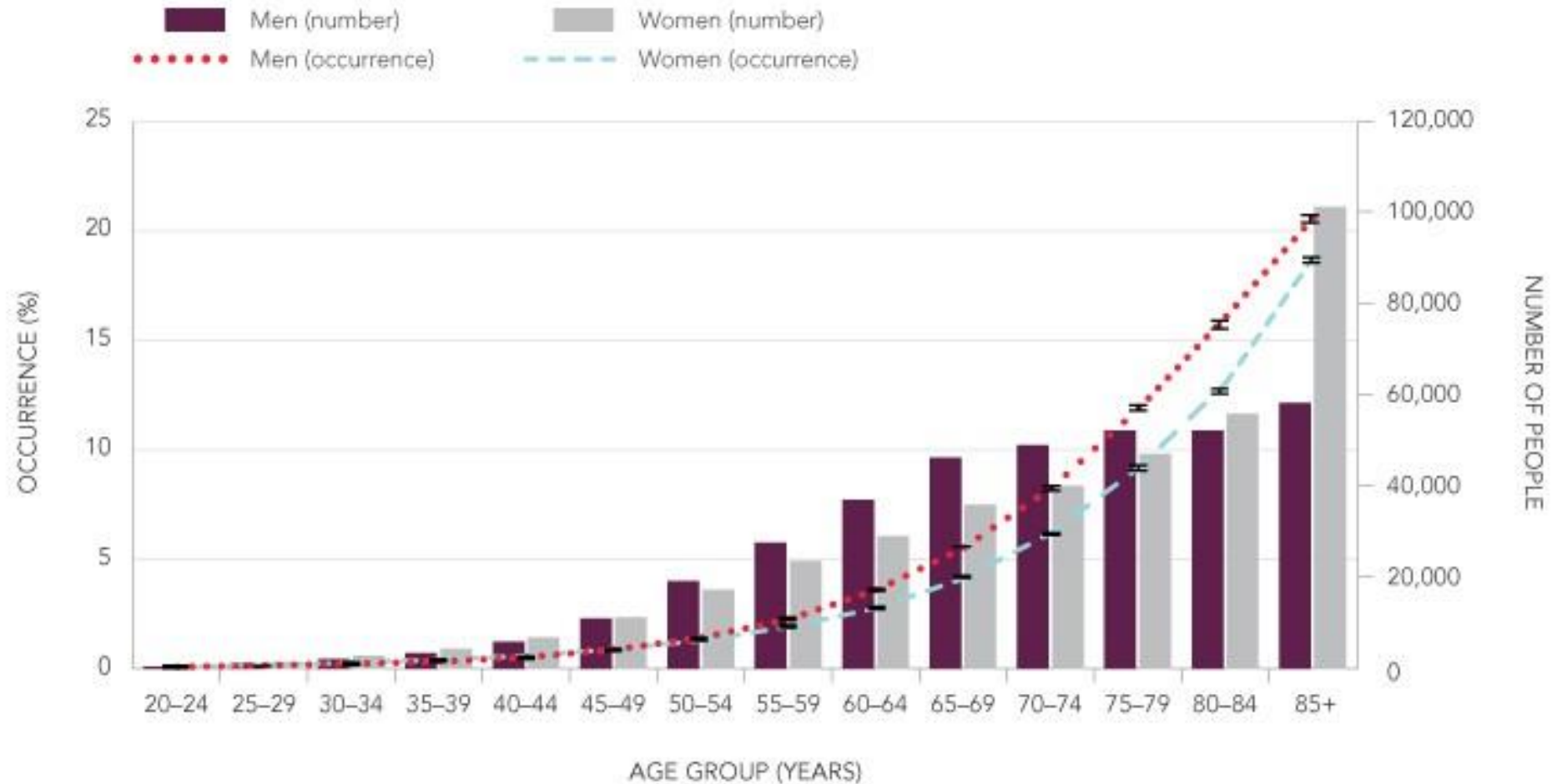
Heart Attack & Ischemic Stroke – the connection

- Coronary artery disease, caused by a blockage of the blood vessels that supply the heart, and Ischemic stroke, caused by damage to the blood vessels in the brain, carry many of the same risk factors. Understanding and managing these risks can help prevent both conditions.
- We target things like high blood pressure, high cholesterol, type 2 diabetes, smoking, and obstructive sleep apnea.
- A heart attack or Ischemic stroke happens when blood flow to a part of the heart muscle or brain is blocked by a blood clot. This blockage is most often caused by the buildup of fatty deposits called plaque in the coronary arteries, a condition known as atherosclerosis. When a plaque ruptures, it triggers the formation of a clot that can completely or partially block the artery, cutting off oxygen to the heart muscle or brain tissue, which begins to die.

Statistics - Canada

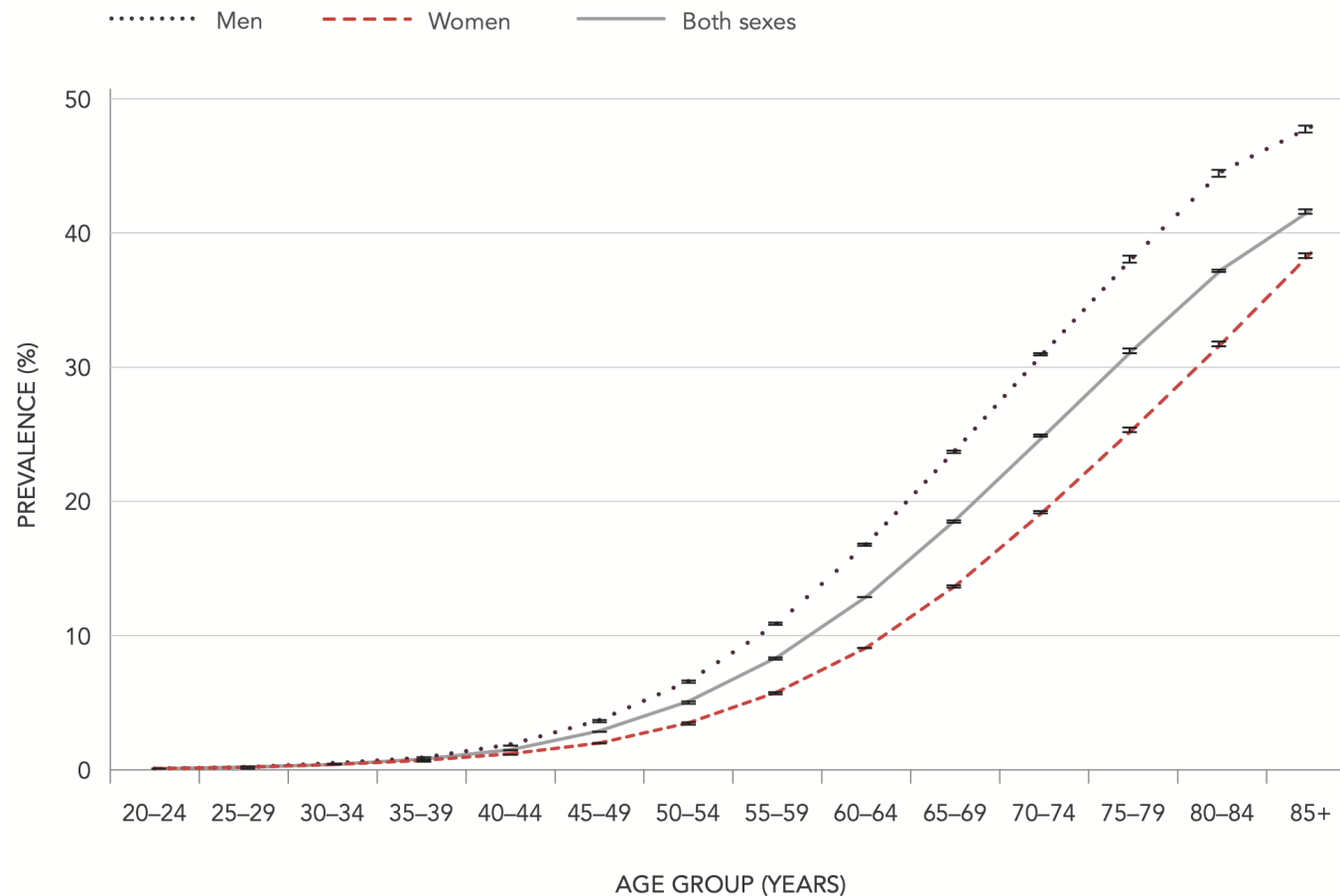
- Combined, heart attacks and strokes are the #2 cause of mortality, slightly behind cancer
- 110,000 strokes annually, 85% are Ischemic
- 60,000 heart attacks annually
- 15% of strokes are fatal
- Risks scale exponentially with age after 50 years
- Overall 75,000 deaths from heart attacks and strokes annually

Statistics - Strokes



Statistics – Heart Disease

FIGURE 4: Prevalence (%) of ischemic heart disease among people aged 20 years and older, by sex and age group, Canada,* 2012/13



F.A.S.T. signs of a stroke

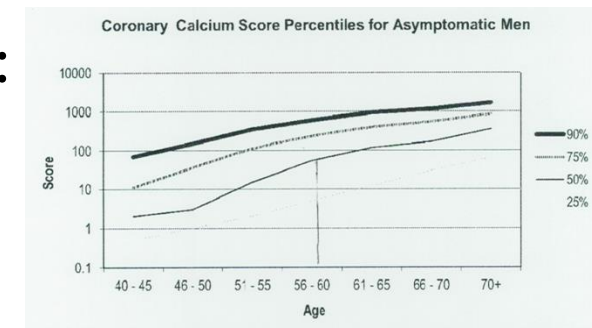
- F - Face Drooping:
 - Ask the person to smile. Does one side of the face droop or is it numb?
- A - Arm Weakness:
 - Ask the person to raise both arms. Does one arm drift downward? Is one arm weak or numb?
- S - Speech Difficulty:
 - Is speech slurred, strange, or garbled? Is the person having trouble speaking or understanding speech? Ask them to repeat a simple phrase, like "the sky is blue".
- T - Time to Call 9-1-1:
 - If you see any of these signs, call 9-1-1 immediately. Note the time the symptoms first appeared.

Other stroke symptoms

- Sudden confusion
- Trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, or loss of balance
- A sudden, severe headache with no known cause
- Why acting fast is important
 - A stroke occurs when blood flow to a part of the brain is interrupted, depriving brain cells of oxygen.
 - Save a life: Prompt medical treatment can save a life.
 - Reduce damage: Quick treatment can reduce brain damage and the long-term effects of a stroke.
 - Even if symptoms go away: Seek emergency medical care even if the symptoms seem to disappear, as this could be a transient ischemic attack (TIA), or "mini-stroke," which is a warning sign of a future stroke.

My Strokes & Pre-conditions

- Oct 4, 2007 – Left Cerebellum - the part of the brain that controls balance and coordination. Symptoms included **loss of sight, sudden dizziness/vertigo, difficulty walking, and nausea**. Lasted several weeks/Bed ridden, no driving. Never fully recovered balance. Not diagnosed until 2nd stroke.
- Oct 10, 2025 – Right Pre-Central Gyrus - the primary motor cortex, responsible for planning and executing voluntary movements by sending signals to skeletal muscles. Symptoms included **left side paralysis (Face, Arm, Leg), slurred speech** (and slow thinking).
- 2000 Heart Scan: **0** calcium score; 2018 scan: **85** - 65% percentile
- On 5mg Lipitor and 5mg Ezetimibe alternating days since 2018: LDL 3.2 -> 1.8, HDL 2.1 -> 1.5, Triglycerides 0.8 ->0.5

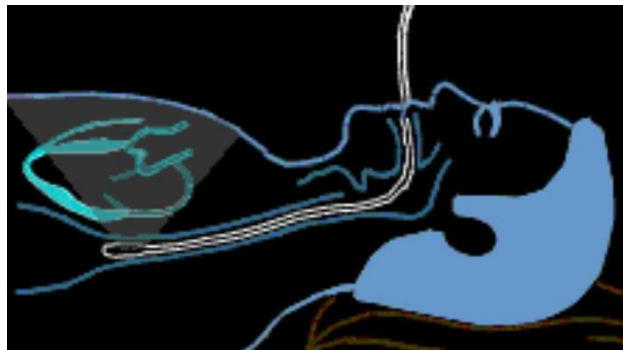


Emergency Response

- I awoke and realized I was stroking. Called for Cheryl ...
- Cheryl called 911 at 8:22am
- Fire Dept arrived T +5min
- Paramedics arrived T +7min
- At VGH ER within 15min, met by stroke team, immediate assessment
- Into CT Scanner and completed by 9am (no bleed -> blood thinners)
- MRI and Echo Cardiogram imaging completed before 5pm
- Up to Stroke ward by 7pm
- Discharged 4pm next day (my birthday)

My condition

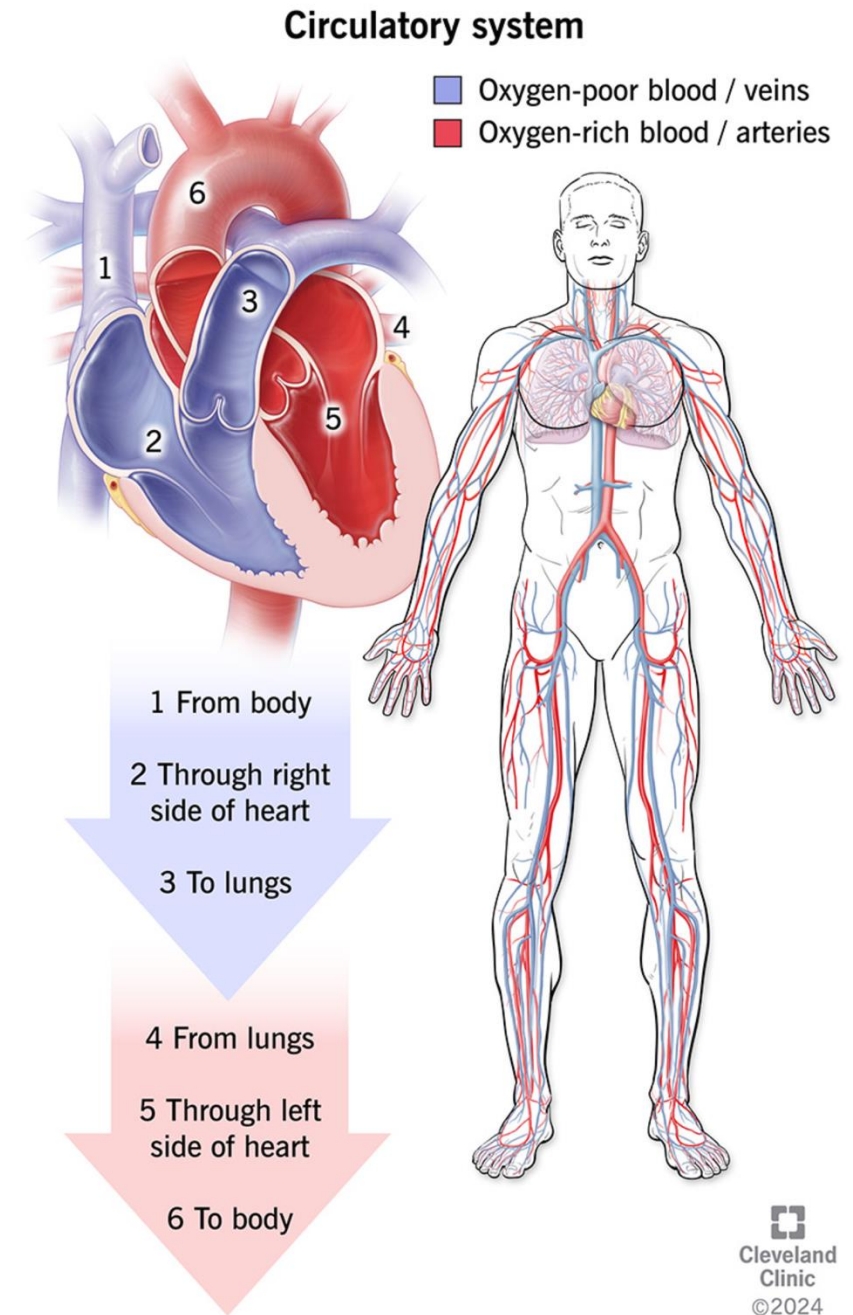
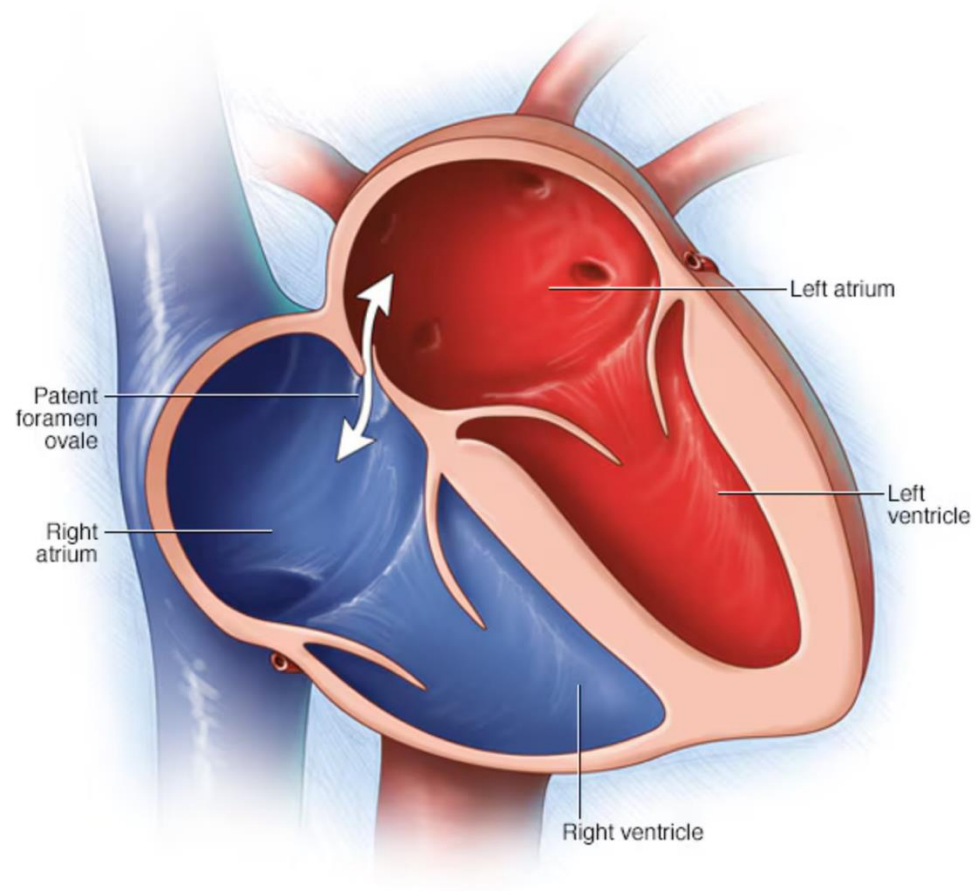
- Within +2hours most paralysis was gone, only left side weakness
- Speech close to normal by mid-afternoon (just slow)
- Only minor left side weakness by +1day (discharge)
- ECG + bubble injection discovered heart hole (PFO)
- 75mg Clopidogrel, 81mg ASA, 40mg Lipitor daily
- Subsequent TEE (PFO) procedure, Holter Monitor
- Referral for PFO closure, now on wait list



bubble study



PFO - patent foramen ovale



How a PFO increases stroke risk

- A normal bypass: A PFO is a small hole between the heart's two upper chambers, the left and right atria, that is a normal part of fetal circulation but typically closes after birth.
- Clots can travel directly to the brain: When a PFO doesn't close, a blood clot (thrombus) that forms in a vein can travel to the right side of the heart and go through the opening directly to the left side of the heart.
- Brain blockage: From the left side of the heart, the clot can be pumped into the arterial system that supplies the brain.
- Stroke from blockage: If the clot lodges in an artery in the brain, it can block blood flow and cause an ischemic stroke.
- Other mechanisms: While paradoxical embolism is the main cause, other factors associated with a PFO may also contribute to stroke risk, including the formation of clots within the PFO itself and certain associated heart or blood conditions.

How the heart works

- The heart has four chambers that pump blood:
- The right upper chamber (right atrium). This heart chamber receives oxygen-poor blood from the body. It pumps blood to the right lower heart chamber through the tricuspid valve.
- The right lower chamber (right ventricle). This heart chamber pumps blood to the lungs through a large vessel called the pulmonary artery. In the lungs, blood picks up oxygen. The blood moves through the pulmonary valve. The valve closes when the chamber relaxes between beats.
- The left upper chamber (left atrium). This heart chamber receives the oxygen-rich blood from the lungs. It sends blood through the pulmonary veins and mitral valve and into the left lower chamber.
- The left lower chamber (left ventricle). This chamber is the heart's main pumping chamber. It pumps the oxygen-rich blood to the rest of the body through the body's largest blood vessel, called the aorta. The blood passes through the aortic valve, which also closes when the chamber relaxes.

The heart before birth

- Because a baby in the womb isn't breathing, the lungs aren't working yet. That means there's no need to pump blood to the lungs. At this stage, blood goes around the baby's lungs. It uses the placenta and umbilical cord to move oxygen-rich blood from the mother to the baby's body.
- In the baby's body, blood vessels connect to the umbilical cord. Oxygen-rich blood gets to the heart through the vein that drains blood from the body to the right upper heart chamber. This vein is called the inferior vena cava. The blood then goes across the foramen ovale and into the left upper heart chamber. Finally, the blood enters the left lower heart chamber, which pumps it throughout the body.
- When a baby's lungs begin working, blood flow through the heart changes. Now the oxygen-rich blood comes from the lungs and enters the left upper heart chamber.
- The pressure of the blood pumping through the heart usually forces the flap opening of the foramen ovale to close. In most people, the opening closes sometime during infancy.

Complications

- A patent foramen ovale, also called a PFO usually doesn't cause complications. Some people with a PFO may have other heart defects
- Possible complications of patent foramen ovale may include:
 - Low blood oxygen. Rarely, a patent foramen ovale can cause a significant amount of blood to go around the lungs. This lowers blood oxygen levels, a condition called hypoxemia (my resting SPO2 % is 92-93 when it should be 95-96%)
 - Stroke. Sometimes small blood clots in veins may travel to the heart. They may go through a patent foramen ovale and into the left side of the heart. From there, they can travel to the brain and block blood flow, causing an ischemic stroke (I have had at least 2 strokes)

PFO closure surgery

- Day surgery via catheter
- Relatively low risk
- Can resume normal activities within a few days
- Heart should fully heal/close within a few months
- On the waitlist at VGH with Dr David Wood

My current condition

- Until the PFO closure I am at risk of another stroke but drugs are helping protect me (LDL goal 1.5)
- Quite often I feel fragile and low energy/tired
- Periods of left side weakness, minor tremors/spasms or sciatica
- Sometimes words don't come out
- Elevated heart rate, difficulty sleeping due to strange body sensations
- When I push myself mentally or get excited I can get dizzy
- Not allowed to lift more than 10-15lbs, no biking, no real physical exertion other than light exercise/walking
- No knives or sharp objects (bleeding risk), no flying or alcohol, limit bad foods, etc.
- Creates a bit of depression at times but glad I am alive and have been able to regain 90% of my functionality already

“Death Cleaning” - Preparing for incapacity or death

- It has been a ‘shot over the bow’ for myself and my family
- We have accelerated the creation of new wills
- I have reviewed all items where I am the critical path and I have created new documents and met with family members to smooth a possible transition into a situation where I am offline
- This is actually good for all of us to do – imagine your death or incapacity: what needs to be done by others to carry on without you?
- With these ‘death cleaning’ tasks mostly completed I am much more relaxed now and can focus on pacing myself and getting better
- When I feel crappy now I just slow down and not try to push thru it
- And I am increasingly confident I’ll not just return to my prior health but get to an even better health with higher SPO2, etc.

Longer Term Changes / Forum Sharing

- I realize that post PFO Closure my risks drop back down
- That said, I am committing to an anti-inflammatory diet, think “Mediterranean diet”
- Significant reduction in the consumption of alcohol, sweets, simple carbs and processed foods
- Thank you for all of your support and kindnesses