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The Beat - Episode 8 Final Transcript

Stroke explained

[00:00:02] **Jennifer** I stood there in front of him and no words would come out. And I thought, that's strange. He turned the TV off, took one look at me and realized I was having a stroke.

[00:00:23] **Caroline** Chances are you or someone you know has been personally affected by heart disease and stroke. They can devastate lives sometimes suddenly but there's hope. I'm Caroline Lavallée, and you're listening to The Beat, a podcast by Heart and Stroke with support from our generous donors. In each episode, we're joined by Canada's leading physicians and experts to discuss the most pressing issues related to heart and brain health. And you'll be inspired by the real stories from people living with heart disease and stroke. Thanks for listening.

Now let's get into the episode.

Despite decades of research, there is still so much about the brain that we don't know. But we do know that damage or an injury to the brain can be life threatening, like the damage that can be caused by a stroke. Each year in Canada, over 89,000 strokes occur and there are 878,000 people living with the effects of stroke. It may come as a surprise that just 25 years ago there was no treatment for acute stroke. But a lot has changed since then. Breakthroughs in drugs and procedures, changes to emergency services and how patients are treated in the weeks following their stroke have all had a profound effect. So let's take a deeper look at stroke and get into some of the things you might not know. We'll hear from two stroke experts, Dr. Patrice Lindsay and Dr. Thalia Field and from Jennifer Monahan, who experience an unexpected stroke in her 40s.

We've heard the word stroke many times in previous episodes, but it would be helpful to hear Dr. Patrice Lindsay tell us exactly what it is. She's the director of Health Systems at Heart and Stroke.

[00:02:25] **Dr. Lindsay** A stroke is an event that happens when blood flow to any part of your brain gets interrupted. It can be stopped because the clot comes from some other part of the body and lodges in one of the vessels. And therefore blood cannot get past that point. And the area past that point without blood nutrients starts to die.

[00:02:46] **Caroline** This is known as an ischemic stroke. By far the most common type.

[00:02:52] **Dr. Lindsay** The other thing that may happen in some people is that a vessel gets weakened – because it's under pressure or there was an anomaly with it – and it starts to leak blood. And that's called a hemorrhagic stroke and a bleed. But in both cases, blood cannot get past a certain point and the cells past that point start to die and affect your different functions that are controlled by the brain.

[00:03:16] **Caroline** There are some less common types of stroke. For example, Dr. Thalia Field, a stroke neurologist and researcher at Vancouver General Hospital, studies a type of stroke known as CVT.

[00:03:31] **Dr. Field** Cerebral venous thrombosis is a type of stroke that affects the draining veins of the brain. And this is in contrast to what we think of as typical strokes, where ischemia typically affects the arteries which bring oxygenated blood to the brain or hemorrhagic stroke, which involves disruption of the blood flow through bleeding through those arteries in the brain. So cerebral venous thrombosis is a drainage problem by contrast.

[00:04:01] **Caroline** We're going to learn that all types can be extremely serious and can have lifelong consequences to a person's physical and mental health. Jennifer Monahan was 43. She was a busy wife and mother of two. She had left a career as a lawyer, and she was enjoying her life as a stay-at-home mom in Kelowna, BC. One night after she put her daughter to bed, Jennifer went downstairs to say goodnight to her husband.

[00:04:34] **Jennifer** I stood there in front of him and no words would come out and I thought, that's strange. He turned the TV off, took one look at me, and realized I was having a stroke.

[00:04:49] **Caroline** Jennifer's husband called 911 and tried to find someone that could watch their kids.

[00:04:57] **Jennifer** I thought he was over-exaggerating what was going on because I only felt at that time I had lost my voice and I had no idea what a stroke was or that it could happen to me. I was a healthy, active woman with no family history of a stroke, no risk factors of having a stroke. And I followed him upstairs. And then I also lost the use of my right side. And I fell to the floor. I was struggling to get up. I couldn't understand what was happening to me. But luckily the ambulance came and took me to the hospital.

[00:05:40] **Caroline** Jennifer's husband wasn't overreacting. He recognized the signs of stroke and knew that she needed medical help as soon as possible. Dr. Lindsay explains that there is a simple way to remember the signs.

[00:05:56] **Dr. Lindsay** So when we're talking about stroke, we use an acronym called **FAST**, and we do that because it's easier to remember three or four things and do it in that way than to try to remember a whole long list of symptoms for any given condition. For FAST, we describe it as **face** – we look and if you see one side of the face is either drooping or doesn't look symmetrical to the other side any more. **Arms** – if you ask them to lift their arms, one side either doesn't move at all or is very weak and can't move in the same way as the other side. **Speech** often sounds either mumbled or jumbled. Hard to understand. Or else they can speak clearly, but the words they're speaking don't make any sense and they're really confused sounding. And T is for **time** because it's critical for somebody with stroke to be seen and get medical attention as soon as possible. We have great treatments for stroke, but they have to be delivered in a certain time frame.

[00:06:55] **Caroline** FAST. Face, arms, speech, time is what you need to remember. Other symptoms can also indicate stroke, especially if the person is showing any of the FAST signs.

[00:07:14] **Dr. Lindsay** The other signs are things like vision issues – double vision or blurred vision or losing sight in one side. Balance, somebody can feel really unstable. Dizziness. More in the case of hemorrhagic stroke or bleeding stroke, we'll often see headache. But it's not your average headache. It's the most severe sudden onset headache you've ever seen.

[00:07:44] **Caroline** By calling 911 instead of driving Jennifer to the hospital himself, her husband made the right decision. Because stroke treatment starts as soon as you call 911.

[00:07:58] **Dr. Lindsay** Even if you think you're in a remote area where it's faster to drive a person to hospital, calling 911 is critical because there's an entire chain of events that they can trigger for somebody having a stroke that saves valuable time when that person finally presents to hospital. Plus, not every hospital in Canada is equipped to deliver urgent emergent stroke care. And the ambulance drivers, the dispatch, know exactly what hospitals provide such services.

[00:08:28] **Caroline** Even being able to treat a stroke like Jennifer's is relatively new. Twenty-five years ago, Dr. Lindsay was an ICU nurse, and at that time, there wasn't much that could be done for someone who had suffered a stroke.

[00:08:46] **Dr. Lindsay** All we could do was keep them comfortable and help protect whatever parts were affected.

[00:08:53] **Caroline** But in 1999, Health Canada approved a major breakthrough in stroke treatment.

[00:09:00] **Dr. Lindsay** Then all of a sudden, these medications became available, the super clot-busting drugs. We already had those in existence for heart conditions – for heart attack – and they were finally able to get a safe dose and particular medication that would also work in the brain.

[00:09:15] **Caroline** And even more recently, another lifesaving treatment was introduced.

[00:09:21] **Dr. Lindsay** Seven years ago, another big breakthrough in acute treatment happened when this procedure, called endovascular thrombectomy came. It is similar to a heart catheterization. They actually stick a small tube up through one of your major vessels into your brain and can actually grab that clot and pull it out. So in these big clots, so much of the brain and so much of your functions can be lost. So being able to go in and grab that clot quickly can be the difference between dying and going home completely well.

[00:09:56] **Caroline** After 20 years of effort, most provinces in Canada now have coordinated systems in place so people who experience stroke can get the care they need quickly.

[00:10:09] **Dr. Lindsay** In Canada, we have established within every province, designated stroke centers. These are centers that have the equipment and the staff to handle acute stroke emergencies. Not every hospital has that capability. Working with ambulance services was a really important piece of launching the Canadian stroke strategy and getting stroke systems in place. And that involved both the ministries of health, working with the paramedic chiefs in every province and region, as well as the hospitals themselves to form agreements or what we call MoU (memorandum of understanding) for bypass, so that the small hospitals agree that it's okay to be bypassed. And the bigger hospitals that have those dedicated expert stroke services agree to take people out of their region to ensure much faster access to that high quality, dedicated, acute stroke therapy.

[00:11:06] **Caroline** Although experts don't have all the answers for what increases the risk of stroke, Dr. Lindsay explains there are common factors to be aware of.

[00:11:17] **Dr. Lindsay** There are several risk factors for stroke. Some of them are very similar to risk factors for other kinds of heart disease. For stroke, the most common risk factor is high blood pressure. We see that in up to 60% or more of people with a stroke. Oftentimes they don't realize they have it until the stroke hits. Other high risk factors are an irregularity of your heart beat called atrial fibrillation. We see that in almost 20% of stroke patients.

[00:11:46] **Caroline** Jennifer was young, healthy, active and had no family history of stroke. Her risk seemed low. But Dr. Field points out that stroke is not always predictable.

[00:12:03] **Dr. Field** So what I would say as kind of overall caveat is that stroke can affect anyone at any age. Stroke is not always caused by those typical risk factors. Stroke can be caused by changes in the heart structure that may occur from birth – congenital heart disease. They may be associated with conditions that increase blood clotting that you're either susceptible to genetically or they can occur in the context of other problems like cancer. Stroke can occur from spontaneous damage to the arteries in the neck or in the head called dissection.

[00:12:43] **Caroline** After experiencing a stroke, some people are fortunate to have zero deficits. But many will have a range of challenges depending on the type, the size, the location of the stroke and how quickly they received medical attention.

[00:13:01] **Dr. Lindsay** When you think back to our signs of stroke – face, arms speech – some of the limitations or disabilities we see afterwards are related to mobility. A weak leg or a weak arm are very common. Speech – many people (over a third of patients with stroke) will have speech impact. Some require a little bit of therapy. Others may take years to even get some functional speech back. Memory and other cognitive abilities and cognitive impairments depend on which vessels were affected. Stroke can interfere with your ability to process complex things. Sometimes that is short-lived, sometimes longer-lived. People have a hard time being in crowded places with a lot of loud noise, it becomes very much sensory overload.

[00:13:50] **Caroline** The sooner a patient can begin rehabilitation after they're medically stable, the better.

[00:13:57] **Dr. Lindsay** So it's really important that we get that recovery started early, which is where stroke units in the hospital, once you're admitted, become really important because that's a main part of their goal. Evidence showed that patients do far better when they have nurses and doctors and physiotherapists and occupational therapists and pharmacists all understanding stroke at a deeper level, directing therapy and ensuring they're getting active rehabilitation therapy from the early days. Usually there's a 4-6 week period of intensive recovery where your body's naturally recovering, and then you'll see more gain. And then for some people, it can hit a plateau at any point and slow down. And they think, okay, I reached all I'm going to reach. But that's not true. We know that recovery can last for weeks, months and even years. I know of somebody who had a stroke 30 years ago and five years ago they said, oh, my gosh, something came back that I thought was gone forever.

[00:14:58] **Caroline** Jennifer spent over a month in the hospital and had to relearn how to speak. She took 4 hours of private speech therapy every week for six months and attended group classes at the hospital. She also needed to regain physical abilities on her right side. By working with the pilates instructor for a year, she was back to doing everything she could before her stroke. Jennifer's husband, mother, family and friends all played a part in her recovery. This incredible support system makes a significant impact on recovery, according to Dr. Field.

[00:15:45] **Dr. Field** You know, some people have very supportive families and financial means where they're able to stop everything and focus a lot on rehab or get the kind of extra resources that may be required. Other people may have a single-income family where the person that just had a stroke is the breadwinner or the breadwinner is unable to stop work to help support their loved one that's had a stroke.

[00:16:12] **Caroline** To say Jennifer appreciated the support she received is an understatement.

[00:16:18] **Jennifer** Not having a support system of friends and family and caregivers and healthcare team would have been a disaster for my recovery. And it's because of all of those efforts and people that I was able to recover as well as I have.

[00:16:39] **Caroline** Dr. Lindsay points out that it's not only the person who's had the stroke that can be significantly impacted.

[00:16:50] **Dr. Lindsay** Initially, the effects on a family are profound. Anyone who has had a stroke is not allowed to drive for 6 to 8 weeks afterwards. So that puts a burden on family and friends to get them to and from appointments. If the person who had a stroke had responsibilities within the family network, who's going to assume those responsibilities or cover those gaps? And who's going to provide the direct-care needs? You know, even things like changing diet affects the whole family. We encourage people to exercise together. You learn the exercises, be part of the exercise program, rather than just nagging and reminding the person to do their exercises – do it with them. We see that in families that work together, people with stroke do much better.

[00:17:34] **Caroline** Although the FAST signs are similar between men and women, women's bodies are not the same as men's. Dr. Lindsay explains that stroke affects women differently and more severely at different stages of life.

[00:17:51] **Dr. Lindsay** So the outcomes in women are worse than men. They tend to have more limitations in terms of how well they recover their motor function, their mobility, their speech. So they tend to have more limits afterwards and they also have a higher incidence of dying afterwards. And because more women tend to live longer than men in general, we see more women in those later years than men because we outlive them. So in a woman's life, we often call pregnancy that first stress test both for their heart and their brain. The changes that happen to a woman's body during pregnancy put stresses on their vessels, put them in a state where they have an increased risk of clots forming just from the pregnancy and the hormones. So we do see an increase in stroke in young women, usually around the time of birth.

[00:18:53] **Caroline** Ten years after her stroke, Jennifer still deals with some challenges, but she uses them as an opportunity to share her story with others.

[00:19:04] **Jennifer** I still struggle with words and it's a lot worse if I am tired. In the evenings, it's best not to ask me any numbers at all. Numbers have always been a challenge for me after my stroke. Despite all of my practicing multiplication tables, counting backwards by fours or threes many, many times for hours, numbers still are a problem for me. One time I had met a new mother at a park. My son was playing with her son and they were getting along great and we wanted to set up an opportunity to organize a second playdate. And I couldn't take down her phone number. And I was standing there, looking to her quite well and able and well bodied, and I didn't know how to tell her. I couldn't trust myself to write down her phone number. So I just decided to throw it all out there. And I told her that I'd had a stroke. And one of the impairments from that stroke was my ability to work with numbers. And could she please write down her phone number for me to take home? And, you know, it shocked her because she had no idea that I had ever had a stroke. And, you know, it was an opportunity for me to help educate another young woman that strokes can happen to all of us, any of us.

[00:20:43] **Caroline** Helping others that have experienced stroke has become something of a calling for her.

[00:20:49] **Jennifer** It took my stroke for me to really appreciate my health and my good fortune. And the other wonderful thing that stroke has brought to me is a meaning in my life, and that is volunteering. And I find volunteering on stroke efforts particularly helpful because I'm able to help others understand that a stroke can happen and what to do if it does. And I often share my story with other stroke survivors.

[00:21:32] **Caroline** After living through her own experience and hearing the stories of others, Jennifer has this advice to anyone who has had a stroke.

[00:21:41] **Jennifer** Do your best to use all the resources that are available to you. And that includes public health care, organizations like the Heart and Stroke Foundation, private health care, your friends, your family and yourself to work on whatever it is that you find important to you and get the best outcome possible. You can never give up and you do have to try, try and try again. It'll take a lot of practice and a lot of time and determination, but I believe you can develop a new normal after a stroke that is worth living and worthwhile and meaningful to yourself.

[00:22:36] **Caroline** In the past few decades, we've learned so much about stroke to improve outcomes and the lives of those affected. And there are new breakthroughs to come. But there is still a lot of research to be done around awareness, prevention, treatment and rehabilitation.

If you'd like to learn more about stroke, be sure to visit heartandstroke.ca/stroke. And remember, if you think you or someone else is having a stroke, think FAST and call 911.

Thank you, Dr. Lindsay and Dr. Field, for your expertise. And thank you, Jennifer, for sharing your story. I hope you enjoyed this episode.

Thanks for listening to Season one of The Beat and a special thanks to our donors for making this podcast possible. We're already working on Season two, so we can bring you more stories and expert insights into heart disease and stroke. We've had so much positive feedback on our Women's Health episode that we're going to share a bonus episode en français. Soyez à l'écoute.

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Until next time. I'm Caroline Lavallée.

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