

**SPEAKER:** When I show this slide, I usually get a surprised look on people's faces. Just in terms of female deaths per year from stroke, as you can see, this is triple as that of breast cancer, death from breast cancer. Not to compete here, but it's important to put it in context. So female deaths per year from stroke is way higher than death from HIV and breast cancer when it comes to death in women.

Women also have 20% lifetime prevalence of stroke. Well, you can say that we live almost a decade longer than men, so there you go. [LAUGHTER] But probably, there are other differences. And hopefully during the course of my presentation, I will be able to convince you that there is more to this difference than simply the age.

About 30,000 more women die from stroke than men. And stroke is third leading cause of death in women, whereas it is the fifth leading cause of death in men. There are also 200,000 and more disabled women from stroke than men.

When it comes to recognizing stroke symptoms at onset, some of you have heard about the mnemonic FAST, F-A-S-T, F standing for facial weakness or facial droop, A for arm weakness, S for slurred speech, and T, time is brain, so FAST. In women, you have to think about unusual, nonspecific presentation of stroke because these are quite prevalent when it comes to stroke presentation in women.

For example, strokes don't hurt. They're not supposed to hurt. You develop slurred speech or weakness without having a severe headache. But it is present more commonly in women. So head, neck pain, or feeling of pain and discomfort in shoulder, upper back region is common among women, change in level of awareness or consciousness, and some other nonspecific symptoms-- for example, emotional outbursts or being subdued.

So these are kind of non-neurologic, nonspecific symptoms. However, if the person goes from being completely normal at work or at home, taking care of their business, minding their own business, and all of sudden, they're not normal, any of these symptoms, you should consider a stroke. If it is not stroke, if they are in the higher age group, age 80 and above, it could be a cardiac event, all right, but event nonetheless. It's important to recognize that FAST or classic stroke symptoms may not be present in all woman, and especially when it comes to younger women.

Now going over risk factors-- we all know hypertension, diabetes. So look at the middle column right there, the middle column-- atrial fibrillation, diabetes, hypertension. Yes, there are stroke risks both in men and women. But guess what? They are stronger and more prevalent in women. Why is it important to highlight this difference? It is important to aggressively manage this stroke risk in women. Then there are sex-specific risk factors, such as pregnancy, preeclampsia, gestational diabetes, gestational hypertension, and risk factors as a result of hormone therapy, whether it's in the form of hormone replacement therapy in later life or post menopausal symptoms, or during childbearing age in the form of contraceptive pills.

One important point I wanted to make is this last variable here, depression. In a very large population-based study involving 22 countries, depression and stress were associated with stroke. Whether there is a causal relationship or not, it's hard to say based on published in this study. But this is an area of active research and something to watch out for in the next decade or so.