

# Cardiomyopathy and Pregnancy

Nationally, peripartum cardiomyopathy is the most common cause of pregnancy-associated heart failure.<sup>1</sup> From 2014-2018, the leading causes of death in the state of Missouri were diseases of the heart. The Missouri Pregnancy Associated Mortality Review (PAMR) Board found that 26% of pregnancy-related deaths were due to cardiomyopathy, with another 5% being attributed to other heart conditions in 2017.<sup>2</sup>



Cardiomyopathy is a medical condition which makes it more difficult for a person's heart to pump blood to the rest of their body, which may ultimately result in heart failure.<sup>3</sup> During pregnancy, the demands upon a mother's heart are greatly increased. In order to nourish her growing baby, a mother is required to pump more blood with every heartbeat, and her heart rate also increases. This increased demand on a mother's heart during pregnancy may worsen a heart disorder that had previously been undetected, or may cause a heart disorder to develop.

The risk of these problems increases throughout pregnancy as the demands on the heart increase.

Additionally, sudden changes in blood flow and pressure that occur during labor and delivery further increases the workload of a mother's heart.<sup>4</sup> This additional demand further increases a mother's risk. After giving birth, it can take several weeks for these stressors on the heart to return to the levels they were before she became pregnant.

For some mothers, their heart will return to full strength within two weeks. However, a number of mothers may recover only a portion of their heart function in the six months following pregnancy, or longer. As such, instances of peripartum cardiomyopathy often occur in subsequent pregnancies. While this is particularly true if their heart function has not returned to normal, mothers are at higher risk for cardiomyopathy with a second pregnancy even with a completely healthy heart.<sup>5</sup>

## Risk factors for Peripartum Cardiomyopathy:

- Having had several pregnancies
- Carrying more than one child
- Maternal age of 30 or older
- Having preeclampsia or eclampsia

Because the symptoms of cardiomyopathy overlap those of normal pregnancy, diagnosis can be a challenge. As such, cardiomyopathy often goes undiagnosed and as many as 1 in 500 adults may have this condition. For this reason, it is important to know the warning signs of cardiomyopathy. Women who have been pregnant within the last year should contact a physician if they experience:<sup>6</sup>

### Warning Signs of Peripartum Cardiomyopathy

- Difficulty Breathing: after minimal physical exertion, such as walking across a room
- Swelling: in the ankles, feet, legs, abdomen and veins of the neck
- Fainting / Fatigue: including dizziness or lightheadedness while seated, feeling like you're going to pass out while standing
- Unusual Heart Beat: discomfort, heaviness, pressure, aching, burning, fullness, squeezing or painful feeling in your chest
- Persistent Cough: coughing that won't go away, regardless of position, and has been present for a while
- Trouble Sleeping: requiring multiple pillows to elevate yourself so you can sleep

None of the instances of cardiomyopathy evaluated by the Missouri PAMR board were considered preventable in 2017. However, consideration and diagnosis of cardiovascular disease during pregnancy could reduce the number of maternal deaths every year nationally.<sup>7</sup> This subject illustrates the importance of preconception health care education for prospective mothers, who otherwise might not engage with the health care system until they become pregnant. Furthermore, it emphasizes the importance of follow-up care postpartum.

<sup>1</sup> Fett JD. Promoting awareness of peripartum cardiomyopathy (PPCM). *International Journal of Cardiology*. 2020;305:113-114. doi:10.1016/j.ijcard.2020.01.057.

<sup>2</sup> Pregnancy Associated Mortality Review Annual Report. 2020. Forthcoming.

<sup>3</sup> Cardiomyopathy. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/cardiomyopathy/symptoms-causes/syc-20370709>. Published January 23, 2019. Accessed March 17, 2020.

<sup>4</sup> Managing heart conditions during pregnancy. Mayo Clinic <https://www.mayoclinic.org/healthy-lifestyle/pregnancy-week-by-week/in-depth/pregnancy/art-20045977>. Published July 18, 2017. Accessed March 17, 2020.

<sup>5</sup> Day JA. Peripartum Cardiomyopathy: Johns Hopkins Women's Cardiovascular Health Center. Peripartum Cardiomyopathy: Johns Hopkins Women's Cardiovascular Health Center. [https://www.hopkinsmedicine.org/heart\\_vascular\\_institute/centers\\_excellence/womens\\_cardiovascular\\_health\\_center/patient\\_information/health\\_topics/peripartum\\_cardiomyopathy.html](https://www.hopkinsmedicine.org/heart_vascular_institute/centers_excellence/womens_cardiovascular_health_center/patient_information/health_topics/peripartum_cardiomyopathy.html). Published April 15, 2016. Accessed March 17, 2020.

<sup>6</sup> PPCM Symptoms and Self Test. Save The Mommies. <https://savethemommies.com/ppcm-symptoms/>. Accessed March 17, 2020.

<sup>7</sup> ACOG Practice Bulletin No. 212. *Obstetrics & Gynecology*. 2019;133(5). doi:10.1097/aog.0000000000003243.

