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Finally. An official scientific statement on heart attacks in women.



by [Carolyn Thomas](#) ♥ [@HeartSisters](#)

“Sucks to be female. Better luck next life!”

You're unlikely to spot this succinct summary within the pages of the new official scientific statement on women's heart attacks from the American Heart Association, but that's basically the message.⁽¹⁾ That pithy summary, by the way, was originally quoted here from **Laura Haywood-Cory**, who at age 40 survived a heart attack caused by Spontaneous Coronary Artery Dissection. (See also: Cardiac Gender Bias: We Need Less TALK and More WALK.)

The AHA statement, published this week in the journal *Circulation* to a flutter of media interest, basically confirms what I've been writing and speaking about for the past eight years: **if you're a woman having a heart attack, you're more likely to be underdiagnosed – and then undertreated even when appropriately diagnosed – compared to our male counterparts.** So my question this week (as a woman who was sent home from the ER in mid-heart attack with a misdiagnosis of acid reflux) is this: if Laura and I and countless other women who've survived a heart attack have long ago reported on this “news”, why has it taken 92 years for the American Heart Association to produce its first ever scientific statement on myocardial infarction in female patients? But don't get me wrong – I'm always relieved to see any attempt from any major heart organization that helps to spread the word, so I'm running the full AHA news release for you here:



A woman's heart attack causes, symptoms may differ from a man's

American Heart Association Scientific Statement

Embargoed until 3 p.m. CT / 4 p.m. ET Monday, January 25, 2016

Statement Highlights

- *Women frequently have different underlying causes of heart attacks than men, such as the types of plaque buildup.*
- *Compared to men, women tend to be undertreated, and are less likely to participate in cardiac rehab after a heart attack.*
- *Risk factors such as high blood pressure and diabetes increase heart attack risk in women more severely than in men.*

DALLAS, Texas, Monday, January 25, 2016 — *A woman's heart attack may have **different underlying causes, symptoms and outcomes** compared to men, and differences in risk factors and outcomes are further pronounced in black and Hispanic women, according to a scientific statement published in the American Heart Association's journal Circulation.*

*The statement is the **first scientific statement from the American Heart Association on heart attacks in women**. It notes that there have been dramatic declines in cardiovascular deaths among women due to improved treatment and prevention of heart disease as well as increased public awareness.*

*"Despite stunning improvements in cardiovascular deaths over the last decade, women still fare worse than men and **heart disease in women remains underdiagnosed, and undertreated**, especially among African-American women," said writing group chair **Laxmi Mehta, M.D.**, a noninvasive cardiologist and Director of the Women's Cardiovascular Health Program at The Ohio State University.*

Causes:

*Heart attacks caused by blockages in the main arteries leading to the heart can occur in both men and women. However, the way the blockages form a blood clot may differ. Compared to men, **women can have less severe blockages that do not require any stents**; yet the heart's coronary artery blood vessels are damaged which results in decreased blood flow to the heart muscle. The result is the same – when blood flow to the heart is decreased for any reason, a heart attack can occur. If doctors don't correctly diagnose the underlying cause of a woman's heart attack, they may not be prescribing the right type of treatments after the heart attack. Medical therapies are similar regardless of the cause of the heart attack or the severity of the blockages. However, **women are undertreated compared to men** despite proven benefits of these medications. (Note from Carolyn: SCAD survivors like Laura Haywood-Cory will be pleased to see that this AHA statement also includes half a page on heart attacks caused by Spontaneous Coronary Artery Dissection).*

Treatment:

Women face greater complications from attempts to restore blood flow because their **blood vessels tend to be smaller, they are older and have increased rates of risk factors, such as diabetes and high blood pressure**. Guideline-recommended **medications** are consistently underutilized in women, leading to worse outcomes. Also, **cardiac rehabilitation** is prescribed less frequently for women and even when it is prescribed, women are less likely to participate in it or complete it.

Symptoms:

While the most common heart attack symptom is chest pain or discomfort for both sexes, **women are more likely to have atypical symptoms** such as shortness of breath, nausea or vomiting, and back or jaw pain.

Risk factors:

Risk factors for heart attacks also differ in degree of risk in men compared to women. For example, **high blood pressure** is more strongly associated with heart attacks in women and if a young woman has **diabetes** her risk for heart disease is 4 to 5 times higher compared to young men.

Racial differences:

Compared to white women, **black women** have a higher incidence of heart attacks in all age categories and young black women have higher in-hospital death rates. Black and **Hispanic women** tend to have more heart-related risk factors such as diabetes, obesity and high blood pressure at the time of their heart attack compared to non-Hispanic white women. Compared to white women, **black women are also less likely to be referred for important treatments** such as cardiac catheterization..

Understanding gender differences can help improve prevention and treatment among women. **“Womenshould not be afraid to ask questions** – we advise all women to have more open and candid discussions with their doctor about both medication and interventional treatments to prevent and treat a heart attack,” Mehta said.

“Coronary heart disease afflicts 6.6 million American women annually and remains the leading threat to the lives of women. Helping women prevent and survive heart attacks through increased research and improving ethnic and racial disparities in prevention and treatment is a public health priority,” she said.

Statement co-authors are **Theresa Beckie, Ph.D.; Holli DeVon, Ph.D., R.N.; Cindy Grines, M.D.; Harlan Krumholz, M.D., S.M.; Michelle Johnson, M.D., M.P.H.; Kathryn Lindley, M.D.; Viola Vaccarino, M.D., Ph.D.; Tracy Wang, M.D., M.H.S., M.Sc.; Karol Watson, M.D., Ph.D.; Nanette Wenger, M.D.**

Author disclosures are on the manuscript.



(1) Laxmi S. Mehta et al. Acute Myocardial Infarction in Women (<http://circ.ahajournals.org/content/early/2016/01/25/CIR.0000000000000351>). A Scientific Statement From the American Heart Association. Published online before print January 25, 2016, doi: 10.1161/CIR.0000000000000351

Q: Did anything surprise you in the AHA statement?

Meanwhile, A Few Things I've Been Writing About While Waiting Around for this AHA Statement:

- [Yentl Syndrome: Cardiology's Gender Gap is Alive and Well \(http://myheartsisters.org/2013/04/17/yentl-syndrome/\)](http://myheartsisters.org/2013/04/17/yentl-syndrome/)
- [The Sad Reality of Women's Heart Health Hits Home \(http://myheartsisters.org/2011/10/28/the-sad-reality-of-womens-heart-disease-hits-home/\)](http://myheartsisters.org/2011/10/28/the-sad-reality-of-womens-heart-disease-hits-home/)

- [How Does It Really Feel to Have a Heart Attack? Women Survivors Answer That Question](http://myheartsisters.org/2009/08/14/how-does-it-feel/)(<http://myheartsisters.org/2009/08/14/how-does-it-feel/>)
- [Diagnosis – and Misdiagnosis – of Women’s Heart Disease](http://myheartsisters.org/2009/05/28/heart-attack-misdiagnosis-women/) (<http://myheartsisters.org/2009/05/28/heart-attack-misdiagnosis-women/>)
- [14 Reasons To Be Glad You’re A Man When You’re Having a Heart Attack](http://myheartsisters.org/2010/06/19/women-heart-attack-worse-than-men/) (<http://myheartsisters.org/2010/06/19/women-heart-attack-worse-than-men/>)
- [His and Hers Heart Attacks](http://myheartsisters.org/2009/10/16/the-hollywood-heart-attack-its-his-not-hers/) (<http://myheartsisters.org/2009/10/16/the-hollywood-heart-attack-its-his-not-hers/>)
- [What is Causing my Chest Pain?](http://myheartsisters.org/2010/09/11/what-is-causing-my-chest-pain/) (<http://myheartsisters.org/2010/09/11/what-is-causing-my-chest-pain/>)
- [When Your Doctor Mislabeled You As an “Anxious Female”](http://myheartsisters.org/2012/06/04/anxious-female/) (<http://myheartsisters.org/2012/06/04/anxious-female/>)
- [Heart Disease: Not Just A Man’s Disease Anymore](http://myheartsisters.org/2010/01/11/not-just-a-mans-disease/) (<http://myheartsisters.org/2010/01/11/not-just-a-mans-disease/>)
- [How Doctors Discovered That Women Have Heart Disease, Too](http://myheartsisters.org/2010/02/28/history-cardiac-diagnosis/) (<http://myheartsisters.org/2010/02/28/history-cardiac-diagnosis/>)
- [Gender Differences in Heart Attack Treatment Contribute To Women’s Higher Death Rates](http://myheartsisters.org/2010/04/17/gender-differences-heart-attack-treatment-higher-death-rates-women/)(<http://myheartsisters.org/2010/04/17/gender-differences-heart-attack-treatment-higher-death-rates-women/>)
- [How a Woman’s Heart Attack is Different From A Man’s](http://myheartsisters.org/2010/11/14/womans-heart-cf-mans/) (<http://myheartsisters.org/2010/11/14/womans-heart-cf-mans/>)
- [How Gender Bias Threatens Women’s Health](http://myheartsisters.org/2014/10/26/how-gender-bias-threatens-womens-health/) (<http://myheartsisters.org/2014/10/26/how-gender-bias-threatens-womens-health/>)
- [The Sad Reality of Women’s Heart Disease Hits Home](http://myheartsisters.org/2011/10/28/the-sad-reality-of-womens-heart-disease-hits-home/) (<http://myheartsisters.org/2011/10/28/the-sad-reality-of-womens-heart-disease-hits-home/>)
- [Women Under Age 55 Fare Worse After Heart Attack Than Men](http://myheartsisters.org/2011/10/26/young-women-fare-worse-heart-attack-than-men/) (<http://myheartsisters.org/2011/10/26/young-women-fare-worse-heart-attack-than-men/>)
- [Researchers Openly Mock the ‘Myth’ of Women’s Unique Heart Attack Symptoms](http://myheartsisters.org/2011/11/01/researchers-dispute-womens-unique-heart-attack-symptom/) (<http://myheartsisters.org/2011/11/01/researchers-dispute-womens-unique-heart-attack-symptom/>)
- [Why Female Shift Workers May Be At Risk for Heart Disease](http://myheartsisters.org/2011/10/24/female-shift-workers-may-be-at-higher-risk-for-heart-disease/) (<http://myheartsisters.org/2011/10/24/female-shift-workers-may-be-at-higher-risk-for-heart-disease/>)
- [Women’s Cardiac Care: Is It Gender Difference – or Gender Bias?](http://myheartsisters.org/2009/08/08/gender-bias/) (<http://myheartsisters.org/2009/08/08/gender-bias/>)
- [Unconscious bias: Why Women Don’t Get the Same Care Men Do](http://myheartsisters.org/2013/08/27/unconscious-bias/) (<http://myheartsisters.org/2013/08/27/unconscious-bias/>)
- [How Can We Get Female Heart Patients Past the E.R. Gatekeepers?](http://myheartsisters.org/2012/11/15/getting-heart-patients-past-gatekeepers-of-emergency-medicine/) (<http://myheartsisters.org/2012/11/15/getting-heart-patients-past-gatekeepers-of-emergency-medicine/>)
- [Why Are Women with Atrial Fibrillation Treated Differently Than Men Are?](http://myheartsisters.org/2011/04/15/women-atrial-fibrillation/) (<http://myheartsisters.org/2011/04/15/women-atrial-fibrillation/>)
- [Women Missing the Beat: Are Doctors Ignoring Women’s Cardiac Symptoms?](http://myheartsisters.org/2009/11/20/women-missing-the-beat/) (<http://myheartsisters.org/2009/11/20/women-missing-the-beat/>)
- [Misdiagnosis: the Perils of “Unwarranted Certainty”](http://myheartsisters.org/2012/01/08/unwarranted-certainty/) (<http://myheartsisters.org/2012/01/08/unwarranted-certainty/>)
- [Things Your Doctor May Not Know](http://ethicalnag.org/2011/11/07/what-your-doctor-may-not-know/) (<http://ethicalnag.org/2011/11/07/what-your-doctor-may-not-know/>)
- [Experts: Why So Wrong So Often?](http://ethicalnag.org/2011/04/29/why-experts-wrong/) (<http://ethicalnag.org/2011/04/29/why-experts-wrong/>)
- [How to Be a Good Patient](http://myheartsisters.org/2011/08/09/how-to-be-a-good-patient/) (<http://myheartsisters.org/2011/08/09/how-to-be-a-good-patient/>)
- [Seven Ways to Misdiagnose a Heart Attack](http://myheartsisters.org/2011/05/09/misdiagnosed-heart-attack/) (<http://myheartsisters.org/2011/05/09/misdiagnosed-heart-attack/>)
- [Words Matter When We Describe our Heart Attack Symptoms](http://myheartsisters.org/2014/11/16/language-describing-heart-attack-symptoms/) (<http://myheartsisters.org/2014/11/16/language-describing-heart-attack-symptoms/>)
- [‘Gaslighting’ – or, Why Women Are Just Too Darned Emotional During their Heart Attacks](http://myheartsisters.org/2016/01/31/finally-an-official-scientific-statement-on-heart-attacks-in-women/)(<http://myheartsisters.org/2016/01/31/finally-an-official-scientific-statement-on-heart-attacks-in-women/>)

[/2011/11/25/gaslighting/](http://myheartsisters.org/2011/11/25/gaslighting/)

- [Mayo Clinic: "What Are the Symptoms of a Heart Attack for Women?" \(http://myheartsisters.org/2009/11/26/womens-symptoms-mayo/\)](http://myheartsisters.org/2009/11/26/womens-symptoms-mayo/)
- [Women's "Heart Attack Myth?" Revisiting the Controversial Canadian Study \(http://myheartsisters.org/2009/11/28/cdn-cardio-congress/\)](http://myheartsisters.org/2009/11/28/cdn-cardio-congress/)
- [Women Heart Attack Survivors Know Their Place \(http://myheartsisters.org/2009/09/13/women-heart-attack-survivors-know-their-place/\)](http://myheartsisters.org/2009/09/13/women-heart-attack-survivors-know-their-place/)

Tags: [AHA scientific statement on women's heart attacks \(http://myheartsisters.org/tag/aha-scientific-statement-on-womens-heart-attacks/\)](http://myheartsisters.org/tag/aha-scientific-statement-on-womens-heart-attacks/), [American Heart Association scientific statement 2016 \(http://myheartsisters.org/tag/american-heart-association-scientific-statement-2016/\)](http://myheartsisters.org/tag/american-heart-association-scientific-statement-2016/), [black women and heart attacks \(http://myheartsisters.org/tag/black-women-and-heart-attacks/\)](http://myheartsisters.org/tag/black-women-and-heart-attacks/), [Dr. Laxmi Mehta \(http://myheartsisters.org/tag/dr-laxmi-mehta/\)](http://myheartsisters.org/tag/dr-laxmi-mehta/), [Hispanic women and heart attacks \(http://myheartsisters.org/tag/hispanic-women-and-heart-attacks/\)](http://myheartsisters.org/tag/hispanic-women-and-heart-attacks/), [women and heart attacks \(http://myheartsisters.org/tag/women-and-heart-attacks-2/\)](http://myheartsisters.org/tag/women-and-heart-attacks-2/)

- **COMMENTS** *12 Comments*
- **CATEGORIES** *Women and heart attacks*

12 Responses to "Finally. An official scientific statement on heart attacks in women."

Curious to the Max February 5, 2016 at 12:39 pm #

I'm guessing that one of the reasons it's taken almost a century to figure men and women have different symptoms and needs is that the medical establishment – physicians, researchers, CEO's etc – has been pretty much dominated by men. Thank goodness that's changing – just not fast enough for my lifetime!

(An interesting brain research aside, but connected to my comment – our brain looks for familiar patterns to make sense of our world – so male brains recognize what is familiar and discard or put unfamiliar sensory cues in the background).

REPLY

Carolyn Thomas February 5, 2016 at 1:58 pm #

Thanks so much Judy-Judith for that thought-provoking observation.

That associated brain research is fascinating, and makes perfect sense, doesn't it? I wrote about something similar one day when I was trying to make sense of misdiagnosis rates (see "[Seven Ways to Misdiagnose a Heart Attack](#)" – one of which is called **Confirmation Bias** – e.g. "*looking for evidence to support a pre-conceived opinion, rather than looking for information to prove oneself wrong.*")

Joan Jahnke February 3, 2016 at 8:48 am #

Sure needs better plans on education to practicing physicians which can run from Family Practice, internists, vascular, GI, pulmonary and cardiologists and psych. The ER may see plenty of chest pain, but they should not be first line diagnosis when the EKG and blood enzymes are 'negative'.....that could be a fatal flaw releasing a patient to home with a follow up with personal doctor that may take weeks or make a patient think "Well, the ER said it was all ok".

Where are the "Guideline-recommended medications?" as referenced in this statement? The most important information here, and my 8 year mission statement for my Coronary Microvascular Disease, is directly from this statement: "...yet the heart's artery blood vessels are damaged which results in decreased blood flow to the heart muscle. The result is the same – when blood flow is decreased for any reason, a heart attack can occur."

Any heart attack, lack of oxygen to any area of heart muscle from micros to larger vessels can be a spotty, small or large damage result with angina / ischemia.

Eliminate immediate threat in the patient first, preferably with a stat cath, then proceed to treatment. I look forward to a blending of practice specialty areas of medicine in a quick team approach to any heart symptoms. My first local cath was quick in 2005. Now if a symptomatic patient enters Emory Cardiology, it is now a stat cath, then treatment plan based on even inconclusive findings like no large coronary narrowing or obstructive disease. Doctors: first believe the patient.

On Jan 31, 2016 7:10 AM, "Heart Sisters" wrote:

"Sucks to be female. Better luck next life!" You're unlikely to spot this succinct summary within the pages of the new official scientific statement on women's heart attacks from the American Heart Association...

REPLY

Carolyn Thomas February 3, 2016 at 2:24 pm #

So many good points, Joan! Yet I'm guessing that when ER docs see EKG and blood enzymes test results that are 'negative', the chances of those patients being misdiagnosed and sent home with instructions to 'go see your GP' are excellent. Lots of research confirms this "bias" (here and here, for example). ER docs are the de facto gatekeepers that can keep heart patients from accessing cardiology department services.

Your "**First Believe The Patient**" advice would be awesome if only it were embraced by ALL frontline gatekeepers...

REPLY

Chris Khayat February 1, 2016 at 6:05 am #

I am curious – when the article says women are "undertreated" compared to men, what do they mean? Less drugs? Fewer bypasses and stents?

REPLY

Carolyn Thomas February 1, 2016 at 6:38 am #

Yes, yes, and yes to all, Chris. Check some of the links listed at the end of this post for some pretty alarming examples of this ongoing undertreatment in women. Previous studies, for instance, have confirmed these specific differences between male and female heart attack patients:

- men were 72% more likely to receive clot-busting drugs than women
- men were 57% more likely to receive a diagnostic angiogram