



A free guide

Hormones and your heart

The real numbers on pills, patches and risk



Taylor Cushman, MD

Physician | MSc in Exercise and Wellness

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Please read the Important Medical Disclaimer at the end of this guide.

The short version

Menopause hormone therapy means estrogen, plus a **progestogen** (progesterone, or a lab-made version called a progestin) if you still have a uterus. The FDA's new labels say to consider it for moderate to severe hot flashes in women under 60 or within 10 years of menopause. *It isn't recommended to prevent heart disease.*

Pill vs patch at a glance

Women 50 to 69 in a big Danish study. The chance of each problem in 1 year, and the extra cases per year of use. Numbers are approximate. Pills were almost all estradiol.

Problem	No hormones	On pills	Extra on pills	Patch or gel
Clot in legs or lungs	0.16%	0.25%	about 1 extra per 1,050 women	no rise seen
Stroke (blocked artery)	0.20%	0.26%	about 1 extra per 1,600 women	no rise seen
Heart attack	0.13%	0.16%	about 1 extra per 3,800 women	no rise overall

The clot rise with pills showed up at every dose; most of the stroke and heart attack rise came from doses over 1 mg a day. *This study watched women, so it can't prove lower doses or patches are safer for your heart.* In the big US trial of older pills, strokes did rise.

- **Patches aren't risk-free:** with a uterus you usually still need a progestogen, and in a French study, breast cancer findings didn't differ between pills and patches or gels.
- **Breast cancer:** in the big US trial, estrogen plus a progestin raised it. Estrogen alone, in women without a uterus, didn't, but a French study of other products saw a small rise.
- **Your heart risk:** the new women's heart guidance says it should shape which option you choose.

Who this guide is and isn't for

This guide is about hormone therapy for hot flashes and night sweats around menopause.

- **Hormone therapy that works through the whole body is usually not used if you have or have had:** vaginal bleeding no one has explained; liver disease; breast cancer or another cancer that grows with estrogen; coronary heart disease (blocked heart arteries), a stroke or a heart attack; a blood clot in the legs or lungs; or a clotting disorder, including an inherited one. That's the list from the Menopause Society and the drug labels.
- **Menopause before 45:** the Menopause Society says the WHI didn't include women like you and its results don't apply. It recommends hormone therapy at least until about 52, the average age of menopause, unless there's a reason not to.
- **Still having periods:** there's much less data for you.
- **Starting later:** *in a review of 19 pill trials, women who started 10 or more years after their last period had more strokes and clots than women on placebo pills. Women who started earlier still had more clots.*

Sources: [Menopause Society hormone therapy statement, 2022](https://pubmed.ncbi.nlm.nih.gov/35797481) (pubmed.ncbi.nlm.nih.gov/35797481); estradiol patch prescribing information (Climara, [DailyMed](https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=1e9702c4-f2d7-4ea8-b6e8-7dca31671864) (dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=1e9702c4-f2d7-4ea8-b6e8-7dca31671864)); [AHA/AAP/ACOG/SMFM Scientific Statement, Circulation 2026](https://doi.org/10.1161/CIR.0000000000001482) (doi.org/10.1161/CIR.0000000000001482); [Boardman et al., Cochrane 2015](https://pubmed.ncbi.nlm.nih.gov/25754617) (pubmed.ncbi.nlm.nih.gov/25754617).

Pill vs patch: clots, stroke and heart attack

Trials first. In the WHI, the big US trial of older-style estrogen pills, strokes rose by about 1 extra per 1,000 women a year during the treatment years (women 50 to 79), with or without a progestin. A review of 19 pill trials also found more strokes. *Across all ages, hormones didn't protect the heart.*

Today's products. The largest recent data come from the Danish study in the table above: more than 1 million women 50 to 69, followed for about 9 years. Numbers from different studies aren't directly comparable.

- **Clots with pills:** a clot in the legs or lungs is not a heart attack. The rise showed up at low and high doses, ran highest early with higher-dose pills, and wasn't seen in women who had stopped.
- **Higher-dose pills (over 1 mg of estradiol a day):** about 1.5 times the stroke risk and 1.4 times the heart attack risk of non-users. (1.5 times means if 10 in 1,000 would have a problem, about 15 do.) About 6 in 10 pill users were on these doses. Stroke rose after more than 1 year of use, heart attack after more than 5, and the longer women took them, the higher it went.
- **Pills at 1 mg a day or less:** no rise in stroke or heart attack was seen in this study, however long women took them. *That's one observational finding, not proof they're heart-safe. They still raised clots.*

Pill vs patch: clots, stroke and heart attack

(continued)

- **Patches and gels:** no rise in clots, and no rise in stroke or heart attack overall. A small group using a combined patch taken in cycles showed more heart attacks, but there were too few women to be sure. UK and French studies that followed women also found no clot rise with patches or gels.
- **Low-dose vaginal estrogen** (a cream, tablet or low-dose ring): very little reaches the bloodstream. In 2 large US studies of creams and tablets, followed for about 7 years or more, it wasn't linked to more heart disease, stroke or clots, though events were few. Those studies watched women; they weren't trials. *If you've had breast cancer, decide this with your cancer team.*

The Danish study watched what happened. It can't prove the pills caused it, and it couldn't account for weight or smoking. It also left out women who'd had a clot, so its patch data don't tell you what's safe if you have. *No trial has put the patch against the pill to see which means fewer heart attacks or strokes.*

Sources: [Manson et al., JAMA 2013](https://pubmed.ncbi.nlm.nih.gov/25754617/) ([pmc.ncbi.nlm.nih.gov/articles/PMC3963523](https://pubmed.ncbi.nlm.nih.gov/25754617/)); [Boardman et al., Cochrane 2015](https://pubmed.ncbi.nlm.nih.gov/17309934/) ([pubmed.ncbi.nlm.nih.gov/25754617](https://pubmed.ncbi.nlm.nih.gov/17309934/)); [Berggreen et al., BMJ 2026](https://pubmed.ncbi.nlm.nih.gov/30562320/) ([bmj.com/content/394/bmj-2026-100688](https://pubmed.ncbi.nlm.nih.gov/30562320/)); [Vinogradova et al., BMJ 2019](https://pubmed.ncbi.nlm.nih.gov/30562320/) ([pmc.ncbi.nlm.nih.gov/articles/PMC6326068](https://pubmed.ncbi.nlm.nih.gov/30562320/)); [Canonico et al., Circulation 2007](https://pubmed.ncbi.nlm.nih.gov/28816933/) ([pubmed.ncbi.nlm.nih.gov/17309934](https://pubmed.ncbi.nlm.nih.gov/28816933/)); [Crandall et al., Menopause 2018](https://pubmed.ncbi.nlm.nih.gov/28816933/) (pubmed.ncbi.nlm.nih.gov/28816933); [Bhupathiraju et al., Menopause 2019](https://pubmed.ncbi.nlm.nih.gov/30562320/) (pubmed.ncbi.nlm.nih.gov/30562320).

Breast cancer

Breast cancer in the WHI

Older pills (conjugated estrogens, with or without medroxyprogesterone), women 50 to 79. Chance per year, averaged over about 16 to 19 years of follow-up; pills were taken for the first 5½ to 7.

Pills tested	On hormones	Placebo pills	Difference
Estrogen plus progestin	0.45%	0.36%	1 extra per 1,100 women
Estrogen alone (no uterus)	0.30%	0.37%	1 fewer per 1,400 women

The WHI didn't test estradiol or patches, and its authors say the results may not apply to other products.

- **Deaths and after stopping:** breast cancer deaths showed no clear difference with estrogen plus progestin and were lower with estrogen alone (about 1 fewer per 6,700 women a year). With estrogen plus progestin, the extra risk stayed higher in the years right after stopping, then was no longer clear.
- **The uterus:** *with a uterus, estrogen alone raises uterine-lining cancer risk*, so it's usually paired with a progestogen.
- **Which progestogen:** in a large French study that followed women (about 3 years of use on average in its 2005 report), **micronized progesterone** wasn't linked to more breast cancer. Most synthetic progestins were, by about 1.4 times (2005 report) and 1.7 times (2008 report) compared with never-users; dydrogesterone's smaller rise could have been chance. *Micronized progesterone may carry less risk, but it hasn't been proven risk-free.* That's from watching women, not a trial, and longer use is less studied. Its 2008 report, with different estrogens, found a small rise with estrogen alone.

Sources: [Chlebowski et al., JAMA 2020](https://pubmed.ncbi.nlm.nih.gov/3388026/) ([pmc.ncbi.nlm.nih.gov/articles/PMC7388026](https://pubmed.ncbi.nlm.nih.gov/3388026/)); [Fournier et al., Int J Cancer 2005](https://pubmed.ncbi.nlm.nih.gov/15551359/) (pubmed.ncbi.nlm.nih.gov/15551359); [Fournier et al., Breast Cancer Res Treat 2008](https://pubmed.ncbi.nlm.nih.gov/17333341/) (pubmed.ncbi.nlm.nih.gov/17333341); FDA labeling change, 2025-11-10.

Timing: when you start

Women 50 to 59 in the WHI (older pills)

Extra (or fewer) cases among women each year during the trial's treatment years, compared with placebo pills. Numbers are approximate. Most of these differences are small enough to be chance.

Outcome	Estrogen plus progestin	Estrogen alone
Heart disease	1 extra per 2,000 women	1 fewer per 900 women
Stroke	1 extra per 2,000 women	1 fewer per 10,000 women
Clot in the legs	1 extra per 1,000 women	1 extra per 2,000 women
Clot in the lungs	1 extra per 1,700 women	1 extra per 3,300 women
Breast cancer	1 extra per 1,700 women	1 fewer per 2,000 women
Deaths from any cause	1 fewer per 1,000 women	1 fewer per 900 women

Only the leg-clot rise with estrogen plus progestin was clear enough to rule out chance.

- **By years since the last period:** in the combined WHI trials (women 50 to 79), heart disease ran about 1 fewer case per 1,700 women a year under 10 years past menopause, 1 extra per 2,500 at 10 to 19 years, and 1 extra per 600 at 20 or more. The trend had $P = .02$ but missed the authors' stricter bar. The stroke rise didn't differ clearly by timing.
- **A review of 19 pill trials:** in women who started within 10 years of menopause, deaths and heart disease were lower, but clots were higher. *Those early-start numbers are subgroup results of moderate quality, not proof.*
- **What it adds up to:** researchers think **timing** may matter. *It's still a hypothesis, and it's not a reason to take hormones for your heart.*

Sources: [Manson et al., JAMA 2013](http://pmc.ncbi.nlm.nih.gov/articles/PMC3963523) (pmc.ncbi.nlm.nih.gov/articles/PMC3963523); [Rossouw et al., JAMA 2007](http://pubmed.ncbi.nlm.nih.gov/17405972) (pubmed.ncbi.nlm.nih.gov/17405972); [Boardman et al., Cochrane 2015](http://pubmed.ncbi.nlm.nih.gov/25754617) (pubmed.ncbi.nlm.nih.gov/25754617).

The label change and your heart risk

A **boxed warning** is a warning set in a box at the top of a drug label. In November 2025 the FDA asked companies to take most of it off menopause hormone labels; the first new labels were approved in February 2026.

- **Coming out of the box:** heart disease, breast cancer and probable dementia, and the advice to use the lowest dose for the shortest time.
- **Staying:** the uterine-cancer warning stays in the box for estrogen-alone products that work through the whole body. For all whole-body products, the heart disease and breast cancer warnings stay in the body of the label.

That's a label change, not a statement that hormones are risk-free.

The new guidance from the American Heart Association and 3 other medical groups says **your own heart risk should shape which option you choose.**

- **The PREVENT calculator:** it estimates your chance of a heart attack or stroke in the next 10 years. Ask for your number at your visit.
- **10% or higher:** the guidance prefers treating hot flashes without hormones. That's a preference, not a ban, and the cut-off hasn't yet been checked against what happens to women who take hormones.
- **Under 10%:** *that doesn't mean hormones are right for you.* The guidance also weighs your age and time since menopause, and a past clot, stroke or breast cancer still counts.
- **Hot flashes:** the guidance says frequent, severe or long-lasting ones may be a warning sign worth raising when you talk about heart risk. They aren't known to damage your heart, and we don't know yet whether treating them lowers heart risk.

Sources: FDA, [labeling change request \(2025-11-10\)](https://www.fda.gov/drugs/drug-alerts-and-statements/fda-requests-labeling-changes-related-safety-information-clarify-benefit-risk-considerations) ([fda.gov/drugs/drug-alerts-and-statements/fda-requests-labeling-changes-related-safety-information-clarify-benefit-risk-considerations](https://www.fda.gov/drugs/drug-alerts-and-statements/fda-requests-labeling-changes-related-safety-information-clarify-benefit-risk-considerations)) and [approval announcement \(2026-02-12\)](https://www.fda.gov/news-events/press-announcements/fda-approves-labeling-changes-menopausal-hormone-therapy-products) ([fda.gov/news-events/press-announcements/fda-approves-labeling-changes-menopausal-hormone-therapy-products](https://www.fda.gov/news-events/press-announcements/fda-approves-labeling-changes-menopausal-hormone-therapy-products)); [AHA/AAP/ACOG/SMFM Scientific Statement, Circulation 2026](https://doi.org/10.1161/CIR.0000000000001482) (doi.org/10.1161/CIR.0000000000001482); [USPSTF, JAMA 2022](https://pubmed.ncbi.nlm.nih.gov/36318127) (pubmed.ncbi.nlm.nih.gov/36318127).

Questions to bring to your visit

1. **My heart risk.** What's my 10-year risk, and how does it change my options?
2. **Clots.** I've had a clot, or a clotting problem runs in my family. Is any form of estrogen an option for me, and who should weigh in?
3. **Pill or patch.** Would a patch or gel fit me better than a pill?
4. **Progestogen.** If I have a uterus, which one would I take, and why?
5. **Dose.** What dose would I start on, and how often will we review it?
6. **If hormones aren't right.** If my risk is 10% or higher, which non-hormone options fit me?

Important Medical Disclaimer

This guide is for general educational purposes only and does not constitute individualized medical advice, diagnosis, or treatment. Medical decisions should be made with your own licensed healthcare professional based on your individual circumstances.

Do not start, stop, or change any medication or treatment based on this guide. Medications discussed may be appropriate for certain individuals, and stopping some medications abruptly can be dangerous.

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