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QUICK FACTS GUIDE | 2026 EDITION

Purple LED light therapy

The latest numbers, a buyer's checklist and a 12-week tracker.

Companion guide to our purple LED light therapy benefits article.
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For information only. Not medical advice. Talk to a dermatologist before starting any new skin treatment.

The numbers behind the trend

Plenty of skin-care claims float around. Figures you can check are rarer. These are the ones we'd trust, each with its source.

50 million

Americans with acne in a typical year, according to the American Academy of Dermatology (AAD).

AAD, page updated Feb 2025. Based on older (2004) burden data, so read it as a rough scale.

85%

of people ages 12 to 24 have at least minor acne. Adult acne affects up to 15% of women.

AAD, Skin conditions by the numbers

4.4 million

new US acne cases in 2021, up 14.3% since 2010. Children under 14 showed the steepest rise.

Akbarialiabad et al., presented at the Society for Investigative Dermatology meeting, May 2025

$657 million

estimated size of the US wearable LED therapy device market in 2025. The forecast is about $1.56 billion by 2033.

Grand View Research. Analyst estimate, not audited sales.

More numbers worth knowing

- LED face masks hold about 59% of the US wearable LED market, and about 68.5% of sales happen online (Grand View Research, 2025).
- Women account for about 70.8% of buyers. Men are the faster-growing group, at a forecast 9.6% a year (Grand View Research).
- Prices run from under $50 to almost $2,000 (Mayo Clinic Press).

Why the acne numbers don't match

The AAD figure estimates how many people are affected in a year. The 2025 study counts new cases (4.4 million) and existing cases (about 8.6 million) from Global Burden of Disease data. They measure different things, so compare the trend in each, not the totals.

What the research says: 2019 vs 2025

Two systematic reviews, six years apart. Reading them side by side shows what has changed and what hasn't.

	2019: Annals of Family Medicine	2025: JAMA Dermatology
Light tested	Blue light only	At-home LED devices: red, blue and combined red-and-blue
Studies	14 randomized trials	6 randomized trials
Participants	698	216 (ages 12 to 50, mild to moderate acne)
Main finding	Mixed. Of 5 trials with investigator ratings, 3 found a significant edge over the comparator. Pooled lesion counts showed no significant difference.	Lesion reductions of about 45% (inflammatory) and 48% (noninflammatory) against controls. Combined red-and-blue devices looked strongest. Gains showed up in 4 to 12 weeks.
Side effects	Generally mild	Mild: dryness, redness or discomfort during treatment. No severe reactions reported.
Biggest caveat	Small, short trials (none over 12 weeks), many at high risk of bias. The authors drew no firm conclusions.	Wide variation between studies and possible publication bias. Results may not carry over to other devices.

What this means for you

- Plan on weeks, not days. The trials that showed gains ran 4 to 12 weeks.
- The evidence covers mild to moderate acne. Severe or cystic acne needs a dermatologist.
- The 2025 authors see LED devices as a likely add-on to over-the-counter and prescription treatments, not a replacement.
- Both reviews sort devices by wavelength: blue, red or both. A device sold as "purple" is generally the combined blue-and-red type.

A cautious view

Dr. Elika Hoss, a dermatologist at Mayo Clinic in Scottsdale, says results vary and long-term studies are lacking. Given the cost and the mild results, she does not currently recommend the devices. She does advise eye protection, especially with blue light, and says people sensitive to light should skip them.

Before you buy: a 7-point check

Marketing pages all sound alike. This checklist cuts through the wording.

Check	Why it matters	Green flag
1. FDA status	"FDA registered" only means the maker listed itself with the agency. FDA says registration does not mean clearance or approval.	A named 510(k) clearance you can look up in FDA's database.
2. Intended use	Clearances cover specific uses, such as acne.	The box or spec sheet names acne, not just "glow."
3. Wavelengths	The research used blue and red light. Vague color names tell you nothing.	Specs list both in nm, about 415 for blue and 630 for red.
4. Eye protection	A Mayo Clinic dermatologist advises eye protection, especially with blue light.	Goggles included or a built-in shield.
5. Intensity and timer	Overuse can cause irritation or redness.	Adjustable levels and an automatic shut-off.
6. Return window	Results take weeks. You need time to judge.	30 days or longer.
7. Price vs. claim	Prices range from under $50 to nearly $2,000.	You are paying for clearance and specs, not marketing words.

Check with a doctor first if you

- are sensitive to light or have a light-triggered condition
- take medication that makes skin more sensitive to light
- are pregnant, or have a history of skin cancer
- have severe, cystic or scarring acne

Your 12-week tracker

Trials that showed gains ran 4 to 12 weeks, so give it the full 12 before you decide. Take a baseline photo in the same light and angle before week 1, then repeat each week.

	Sessions (goal 3 to 5)	Minutes each	New breakouts	Redness (1 to 5)	Photo	Notes
Week 1						
Week 2						
Week 3						
Week 4						
Week 5						
Week 6						
Week 7						
Week 8						
Week 9						
Week 10						
Week 11						
Week 12						

How to use it

- Count new breakouts on the same day each week so the numbers compare fairly.
- Rate redness from 1 (barely visible) to 5 (very red) in the same lighting.
- If nothing has improved by week 12, book a dermatologist visit and bring this sheet.

Questions for your dermatologist

Bring these to your next appointment. They turn a vague visit into a useful one.

1. Is my acne type something LED light can help, or does it need a different approach?
2. Will a light device fit with my current treatments, such as retinoids or benzoyl peroxide?
3. Do any of my medications make my skin more sensitive to light?
4. Which cleared device would you trust, and which would you skip?
5. How many weeks should I give it before we decide it isn't working?
6. When would you add or switch to a prescription treatment?

Sources

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This guide is for general information and is not medical advice. Figures come from the sources above and may be updated. Market numbers are analyst estimates.