

Photodynamic therapy

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Overview

Photodynamic therapy is a two-stage treatment that combines light energy with a medicine called a photosensitizer. The photosensitizer kills cancerous and precancerous cells when activated by light, usually from a laser.

The photosensitizer is nontoxic until it is activated by light. After light activation, however, the photosensitizer becomes toxic to the targeted tissue.

Several photosensitizer drugs are available today to treat many conditions, including acne, psoriasis, age-related macular degeneration and several types of cancer.

In addition to treating these conditions, photodynamic therapy also helps treat bacterial, fungal and viral infections. Studies have shown that this light-based therapy can trigger the body's immune response, giving the body another means to help destroy cancerous and precancerous cells.

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Biofrontera Inc. et al v. Sun Pharmaceutical et al
Sun Pharmaceutical's Exhibit 2074

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Why it's done

Photodynamic therapy is used to treat a variety of conditions, including:

- Pancreatic cancer.
- Bile duct cancer, also known as cholangiocarcinoma.
- Esophageal cancer.
- Lung cancer.
- Head and neck cancers.

- Certain skin diseases, including acne, psoriasis, nonmelanoma skin cancer and precancerous skin changes, known as actinic keratosis.
- Bacterial, fungal and viral infections.

By Mayo Clinic Staff

Photodynamic therapy care at Mayo Clinic

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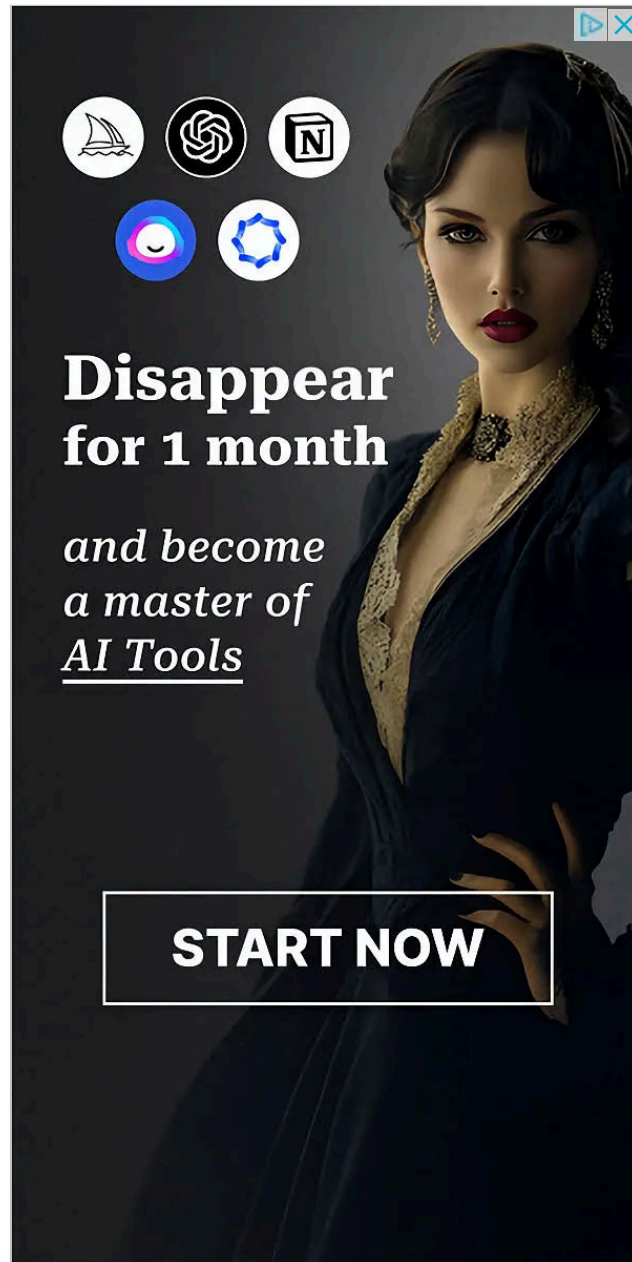
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Advertisement featuring a woman in a dark, elegant dress with a gold lace collar. The background is dark. In the top left corner, there are five circular icons representing different AI tools: a sailboat, a knot, a cube with 'N', a blue circle with a white 'C', and a blue hexagon with a white 'S'. The text 'Disappear for 1 month' is prominently displayed in white, followed by 'and become a master of AI Tools' in a smaller, italicized font. At the bottom, there is a white rectangular button with the text 'START NOW' in bold black letters. In the top right corner of the ad, there are small icons for a play button and a close button.

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