

Chapter 11

Evaluation

Cancer-preventive activity

Humans

There is *inadequate evidence* in humans for a cancer-preventive effect of topical use of sunscreen formulations against cutaneous malignant melanoma.

There is *inadequate evidence* in humans for a cancer-preventive effect of topical use of sunscreen formulations against basal-cell carcinoma of the skin.

There is *limited evidence* in humans for a cancer-preventive effect of topical use of sunscreen formulations against squamous-cell carcinoma of the skin.

Experimental animals

There is *sufficient evidence* in experimental animals for a cancer-preventive effect of sunscreen formulations. This evaluation is based on prevention of squamous-cell carcinoma of the skin induced in mice by solar-simulated radiation.

Overall evaluation

- Topical use of sunscreens reduces the risk for sunburn in humans.
- Sunscreens probably prevent squamous-cell carcinoma of the skin when used mainly during unintentional sun exposure.
- No conclusion can be drawn about the cancer-preventive activity of topical use of sunscreens against basal-cell carcinoma and cutaneous melanoma.
- Use of sunscreens can extend the duration of intentional sun exposure, such as sunbathing. Such an extension may increase the risk for cutaneous melanoma.