



Figure 3.13
The delicate balance of “optimal” exposure to UV radiation and health.

How do you know whether the UV levels are at a dangerous level on any given day? Most developed countries provide a *UV Index* forecast, which uses computer models to predict the risk of sunburn from overexposure to UV light from the Sun. Important factors considered by most models include the ozone concentration in the upper atmosphere, elevation, and cloud cover. Daily UV Index values range from 0 (during nighttime) to 15 (extremely high risk) and are color-coded for ease of interpretation (Figure 3.14). These values also are accompanied by suggestions to help protect your eyes and skin from UV damage as shown in Table 3.2.

Your Turn 3.12 You Decide UV Index

Many governments provide a daily UV Index forecast for different areas of the country. Use a government website to look up today’s UV Index for your location.

- a. Compare today’s UV Index value to an average value six months ago. Is there much of a difference? Why or why not?
- b. Look at a map of your country for the hottest part of the year. Where is the UV Index the highest? Why? Where is the UV Index the lowest?



Figure 3.14
The color-coded UV Index scale.

Table 3.2		Suggestions Based on the UV Index Scale
Exposure Category	Index	Tips to Avoid Harmful Exposure to UV
LOW	0–2	If you burn easily, cover up and use sunscreen.
MODERATE	3–5	Stay in the shade when the rays of the Sun are strongest.
HIGH	6–7	Cover up, wear a hat and sunglasses, and use sunscreen. Reduce exposure between 10 am and 4 pm.
VERY HIGH	8–10	Be especially careful if you are outside on sand, snow, or water, as these surfaces reflect UV, increasing your exposure. Minimize exposure between 10 am and 4 pm.
EXTREME	11+	Take full precautions against sunburn. Unprotected skin can burn in minutes. Avoid the Sun between 10 am and 4 pm.