

What Sun Protection Products Block Ultraviolet Radiation Best?

McCullough, Carlisle

Ultraviolet radiation from the sun can be damaging to the skin, eyes, and immune system and is carcinogenic to humans. Despite heightened skin cancer awareness in recent years, the incidence of melanoma is rising faster than ANY other cancer. Americans tend to rely on sunscreens as the most important means of sun protection. However, sunscreen is NOT enough as evidenced by the melanoma epidemic in America. Humans must adopt better sun-protective behaviors to avoid problems from ultraviolet radiation exposure. This experiment used ultraviolet energy beads to evaluate how well different sun protection products block solar ultraviolet radiation. Five trials were conducted at 12 noon on sunny December days in Savannah, Georgia. A UV checker/meter was used to assure a similar UV index on all test days. Ultraviolet exposure was measured/ judged using the UV energy beads rated on a color change scale of 0 to 4. Sunglasses and some clothing (jeans, dark T-shirt, UPF hat, UV buff, UPF gloves) were quite effective in totally preventing ultraviolet radiation penetration. A UPF 30 shirt, car window film, and white T-shirt did block ultraviolet radiation but not totally. No tested sunscreen totally blocked ultraviolet radiation, but a SPF 30 sunscreen performed the best. All must learn to protect from the sun using the right products. Protective clothing, hats, sunglasses, window films, and the right sunscreens (applied properly) can help protect from the sun's harmful rays. Finding the best protection is important as well as implementing sun protection on a consistent daily basis.