

# THE DOG DAYS OF SUMMER

A month into summer and demand for sunscreen is rising.



**D**og Days: *noun*. 1. The sultry part of the summer, supposed to occur during the period that Sirius, the Dog Star, rises at the same time as the sun:

now often reckoned from July 3 to August 11. 2. A period marked by lethargy, inactivity or indolence.

This summer, the first-ever Final Rule in Sunscreens was scheduled for implementation. The only hot news this season, instead, has been the postponement of the FDA's Final Rule by an additional six months.

In my March column, I predicted that the Final Rule would be postponed; but even as recently as April 26, three FDA representatives in a workshop on regulations sponsored by ICMAD (Independent Cosmetic Manufacturers and Distributions) continued to deny that a postponement was planned. This announcement, as you can imagine, has provoked many sharp reactions from consumer groups and politicians. A group of senators (Reed, Gillibrand, Kerry, Leahy, Sanders and Schumer) sent a letter to the FDA requesting that the Administration reverse its decision

to delay sunscreen rules and implement the new standards by this summer.<sup>1</sup>

Congresswoman Nita Lowey, who had drafted legislation requiring sunscreen manufacturers disclose the protection their products offer, blasted the latest delay by the FDA in a letter stating "Nearly five years after the FDA issued draft regulations to protect consumers and their children from skin cancer, it is an embarrassment that the regulations are still not finalized. I am appalled to learn that yet another summer will go by without consumers having adequate information to protect themselves and their family."<sup>2</sup>

The FDA published its "Delay of Compliance Dates" on May 11, 2012 in the Federal Register which called for an additional six months extension and moved implementation of the Final Rule in Sunscreens to Dec. 17, 2012.<sup>3</sup> It argued that "allowing adequate time for the 2011 Final Rule requirements to be fully



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implemented is in the interest of public health.” The FDA cites the information provided by the Personal Care Product Council (PCPC)/Consumer Healthcare Products Association (CHPA) submission that describes the process for testing and relabeling sunscreen products in support of the requested extension of the time for compliance with the Final Rule. The submission stated that complete implementation of new labeling could not be achieved by June 18, 2012 particularly for sunscreen products that had complex label redesign issues, and required broad spectrum testing.

The summertime signals a marked increase in the media activity that relates

to the usage of sunscreens. Blogs, articles, press and media coverage surge during this period with myriad citations and reports both positive and negative. *Consumer Reports* (CR) issued its 2012 Sunscreen Report in May and so did the Environmental Working Group (EWG). As has been the case in previous years, their conclusions vary markedly.

CR tested 18 of the top selling sunscreens by enlisting volunteers and also by conducting the new “critical wavelength” test for broad spectrum protection.<sup>4</sup> Ratings considered practical consideration such as the price per ounce and whether or not they stained clothing. It cited seven products as “very good”

against UVA and “excellent” against UVB rays and also water resistant for 80 minutes. The products identified by CR included:

- All Terrain Aqua Sport Lotion SPF 30,
- Banana Boat Clear Ultra Mist Spray SPF 30,
- Coppertone Sport Spray SPF 30,
- Coppertone Oil-Free Foaming Spray SPF 75+, and
- Eco All Natural Lotion SPF 30.

*Consumer Reports* also listed two sunscreens as “best buys:”

- No-Ad Lotion SPF 45 and
- Walgreens Continuous Spray Sport SPF 50.

Ironically, the EWG report lists most of these top-selling sunscreens as hazardous to your health! The aforementioned Banana Boat, Coppertone and the two “best buys,” No-Ad and the Walgreens, were all rated by EWG at 7 (hazardous and unsafe). EWG has a list of conditions (presence of oxybenzone or retinyl palmitate, if the sunscreen is a spray or a powder, whether it contains insect repellent, or has an SPF higher than 50+) where the presence of one of these conditions in the sunscreen gives it a rating of at least 3, and if two conditions are present, then they are rated 7 or higher. EWG tested 1,807 sunscreen products on the market and found only one third of them as safe and effective.<sup>5</sup>

The EWG report drew the usual sharp response from Farah Ahmed, chair of the PCPC Sunscreen Task force, who stated, “Allegations contained in the Environmental Working Group’s 2012 sunscreen report disregard or distort an extensive body of scientific research on the safety, efficacy and health benefits of sunscreen. With skin cancer rates on the rise, this does a great disservice to consumers and undermines the efforts of public health advocates to educate people about the importance of using sunscreen as part of their sun protection regimen.”<sup>6</sup>

Tanning and sun protection can be dangerous! A few incidents recently received major coverage in the press and blogosphere that included a Massachusetts man who caught on fire

Whether it's a lotion, cream or spray, sunscreen formulas provide important protection against UV damage.





after spraying himself with sunscreens next to the barbecue (read the warning labels!).<sup>7</sup> A woman from Atlanta claimed that her spray sunscreen had damaged her Nook e-reader and that the warning on the spray can, stating that it can damage some fabric material or surfaces, was too small to read.<sup>8</sup>

Nail salons have been accused of contributing to higher incidence of skin cancer of the hands and arms with the use of UV curing machines to help in the drying of gel nail polish.<sup>9</sup>

More condemning stories about tanning salons, especially near prom-time and the start of the summer season, have been reported. More importantly, the Mayo Clinic in Rochester, MN has recently published its findings from a study on skin cancer rates. Mayo researchers found a dramatic increase in melanoma among young adults ages

18-39 during the past four decades. In fact, the statistics show that the disease increased eight-fold among young women and four-fold among young men. Researchers speculated the use of indoor tanning beds was a key factor in increasing melanoma rates among young women.<sup>10</sup>

The recent statistics as to the rise of skin cancers in the US (nearly two million skin cancer cases are reported annually) increase the speculation as to its causes. Among the many factors for this increase include the depletion of the ozone layer, the migration of fair skinned individuals to sunny locations, love of the outdoors and sun rays, and the increased use of tanning salons and nail salons. Other contributing factors include improved methods of detection, an increase in visits to dermatologists, the notable increase of practicing



**With temperatures soaring, the US has entered the dog days of summer.**

dermatologists, especially among women doctors, and the delay in the onset of the signs of skin cancer long after exposure. Other arguments explaining the increase in skin cancers include inadequate protection caused by the improper use of sunscreens or other sun protection measures (such as avoiding the mid-day sun, failure to use hats, umbrellas, and properly designed clothing and coverings) and, the false sense of security by consumers who use improper sun care products or who apply insufficient amounts for adequate protection.

Ultimately, it's the lack of adequate "solar protection" which has led to increases in skin cancers. This "solar protection" clearly includes not only the 7% of the ultraviolet rays, but also the 39% of the visible rays and the 54% of the infrared rays that are emitted daily from the sun. I call on the National Weather Service to issue a daily "Solar-Index" warning report in lieu of the current "UV-Index."

I have written extensively in the last two issues of "The Sunscreen Filter" on the subject of infrared (especially IR-A) radiation in causing skin aging and, ultimately, skin cancers. These rays, unlike the less innocuous visible rays, are associated with heat damage that tends to accelerate (and catalyze) skin damage. In addition to the fact that they represent more than half of

the daily rays of the sun, they have a much longer wavelength than those of the ultra-violet rays; i.e. they penetrate deeper into the skin and reach genetic material in the dermis and the subcutis. Recent research has clearly implicated IR-A rays with increased free-radical formation (ROS) on the skin that ultimately increases the production of MMP-1 (matrix metalloproteinase-1 enzymes) which tend to degrade collagen, elastin and other skin tissue, leading to wrinkles, fine lines and photo damage. The simple conclusion is that the skin of humans is not adequately designed to absorb the sun's rays, nor is it able to protect itself from solar radiation and the harsh elements of the environment. Proper protection from all the rays of the sun with sunscreens that block the majority of the solar rays, abstinence from tanning, and avoiding the sun altogether at peak hours, is highly recommended. Let's hope that consumers will do their best to protect from the sun's damaging rays this summer, and let's also hope that the FDA will put into place the regulations governing the sunscreen industry before the first snowflakes of winter begin to fall. ●

## References

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