

# Prevention & Treatment of SUN Damage<sup>©</sup>



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This information is the most current and proven, and our suggestions for the most practical method of protection.

**The Sun** and tanning beds produce *long wave UVA rays* that cause cellular damage leading to aging and skin cancer. They are present all the time at all latitudes and penetrate clothing and glass and, therefore, are present indoors and in the shade. They also penetrate the skin, causing release of free Oxygen radicals that attack and injure normal skin cells. Research published in 2013 showed that in just 4 ½ years of the study wearing a UVA block DAILY reduced the amount of sun damage by 26% over those that wore sunblock only when they "went out in the sun." The atmosphere, clothing and the top layer of the skin absorb UVB rays. They are strongest mid-day, in the summer and down South and cause mainly sunburn and some cell damage. SPF indicates only the effectiveness of UVB blockage and protection from sunburn. Wearing a sunscreen with High SPF does not convey UVA protection or prevent cellular damage. Labeling recommendations as of December 2013 require sunscreen manufacturers to disclose whether they block UVA. They are not required to reveal which are most practical (the Zinc Oxide ones).

**Cover up** using an opaque, wide brimmed Hat, sun protective Clothing & Sunglasses. Most clothing does NOT block UVA. Blue jeans and other heavy and tightly woven fabric and some specifically designed clothing block all or most of UVB & UVA. Sun protective clothing can be found by searching on line, at the *Highland Hiker* in Highlands and Cashiers, *Three Eagle Outfitters* in Franklin, *Blackrock Outdoor Co.* in Sylva and most other outdoor recreation companies including REI. Rit Sun Guard<sup>®</sup>, available at our office, some Ingles (Sylva on 107) and some Eckerd's, washes UV protection into clothing that lasts for about 20 washes. We suggest using this every 6 months.

**Use Broad spectrum Sun Block with Zinc Oxide (Z-Cote) daily.** *This product is clear.* The most common UVA sunblock is Avobenzone (Helioplex<sup>®</sup> by Neutrogena), a chemical sunscreen. However, Avobenzone absolutely must be reapplied every hour outside and every 2 hours inside to work. Zinc oxide, a physical sunblock, continues to work unless rubbed or washed off. Instead of SPF, look only for Zinc Oxide or "Z-Cote" of at least 8%. This will have an SPF of at least 20, but also blocks UVA. Some products containing Zinc Oxide:

*Available in OUR office:* Obagi<sup>®</sup> Matte Sun Shield SPF 50 (Z-Cote 10.5%, water resistant), Obagi<sup>®</sup> Healthy Skin Protection SPF 35 (Z-Cote 9%, water resistant), Obagi<sup>®</sup> Physical UV Block SPF 32 (Z-Cote 18.5% water resistant), Obagi<sup>®</sup> Tinted Sunscreen (though with only 5% Zinc); Epionce Ultra Shield Lotion SPF 50+ (Z-Cote 10.1%, water resistant)

Because of the new FDA regulations, Zinc Oxide containing sun blocks are more readily available at pharmacies and other outlets. The majority of sunscreens contain only avobenzone, so be careful and read the label.

*Available over the Internet:* most Elta MD, Blue Lizard and SkinCeuticals; DCL Super Sheer, DermaQuest ZincClear; Clear Choice SportShield.

**Use Vitamin C** (L-ascorbic acid) **serum topically daily.** This prevents injury from UVA rays that get through the sunblock and also rejuvenates the skin from previous damage. This has to be at a certain concentration and PH to work. Not everything advertised as Vitamin-C really works. Some products that do:

*Available in OUR office:* Obagi<sup>®</sup> Professional C<sup>™</sup> Serum (10%, 15% and 20%)

*Available Elsewhere:* Cellex<sup>®</sup>C Serum; VivierSkin<sup>®</sup> Serum 10, 20, C&E, & C E Peptides, SkinCeuticals multiple

**Restore the health of your skin.** Skin health restoration *IS A PROCESS, NOT* a product. Healthy skin is smooth, firm, evenly pigmented, & hydrated with a slightly acid pH and protective lipid layer. To restore Sun damaged skin:

*Remove the thickened outer dead layer using AHA's (Alpha Hydroxy Acids), Microdermabrasion &/or Peels*

*Restore the normal pH and protective layer with topical Vitamin-C, an acidic antioxidant, or a balancing toner*

*Correct the Pigment by removing spots & making the rest of the skin a uniform color using Hydroquinone, &, to some extent, topical Vitamin-C, occasionally supplemented with Micro-Peels. An IPL can also do this.*

*Rebuild tissue & blood vessels, correct wrinkles & heal injured cells using Tretinoin (Retin-A<sup>®</sup>), ELASTIderm<sup>®</sup>, & topical Vitamin C.*

[The Obagi Nu-Derm<sup>®</sup> system incorporates all of the above. This and other adjuncts are available in OUR office]

*Ancillary procedures:* Smooth the skin and reduce wrinkles with injections of fat, Juvéderm<sup>®</sup> Ultra, Volbella and Voluma and/or Botox<sup>®</sup>, Fruit acid peels, Phenol peels, &/or Laser resurfacing. [All available in our office.]