Fact or Myth: Sunscreen prevents skin cancer

1) Fact

2) Myth
Sunscreen & Melanoma Prevention

Reduced Melanoma After Regular Sunscreen Use: Randomized Trial Follow-Up
Adèle C. Green, Gail M. Williams, Valerie Logan, and Geoffrey M. Strutton

Regular sunscreen use decreases the risk for squamous cell cancer and melanoma

Fact or Myth: Sun protection after having a melanoma reduces the risk for getting another melanoma

1) Fact
2) Myth
Ambient UV, personal sun exposure and risk of multiple primary melanomas

Anne Kricker · Bruce K. Armstrong · Chris Goumas · Melisa Litchfield · Colin B. Begg · Amanda J. Hummer · Loraine D. Marrett · Beth Theis · Robert C. Millikan · Nancy Thomas · Hoda Anton Culver · Richard P. Gallagher · Terence Dwyer · Timothy R. Rebbeck · Peter A. Kanetsky · Klaus Busam · Lynn From · Urvi Mujumdar · Roberto Zanetti · Marianne Berwick · for the GEM Study Group

- **UV exposure in childhood**: the strongest sun-related risk factor for developing more than 1 melanoma
- **UV exposure in adulthood**: adds to the risk for developing melanoma
  - Recreational sun exposure
  - Beach and waterside activities
  - Vacations in sunnier climate
  - Sunburn

Kricker Ca Causes Control 2007 18:295-304
Fundamentals: Ultraviolet light

- The sun emits ultraviolet (UV) light
  - UVA
  - UVB
  - UVC (absorbed by the ozone in the earth’s atmosphere)
Fundamentals: Ultraviolet light

• Short-term effects
  – Sunburn
  – Tanning

• Long-term effects
  – Premature aging
    • Dark spots
    • Wrinkles
    • Loose skin
  – Increased risk of skin cancer
Test your knowledge!

PROTECTING YOUR SKIN FROM THE SUN
Which is the most effective way to protect your skin from the sun?

1) Avoiding sun exposure
2) Sun-protective clothing
3) Sunscreen
Sun Avoidance

UVB intensity peaks from 10am to 2pm

UVA is relatively constant throughout the day
Which is the most effective way to protect your skin from the sun?

1) Avoiding sun exposure
2) Sun-protective clothing
3) Sunscreen
Sun-protective clothing with UPF (ultraviolet protection factor)

Benefits of sun-protective clothing
- Once garment is on, it starts working immediately
- Won’t wear off throughout the day
- Not messy, oily or greasy
- Non-allergenic
- Potential cost savings: garments last many seasons
- Created for Leisure and Sporting activities
- Fashionable and trendy
How to guarantee adequate sun protection for a young sportsperson

Sara Ghazi, Céline Couteau, Laurence J. M. Coiffard

Conclusions: Depending on the type of clothing, the level of sun protection will vary greatly, with UPF values ranging from 30 for a T-shirt to 300 for a club shirt. This type of protection is higher than that obtained by sun creams and does not change over time.
Which is the most effective way to protect your skin from the sun?

1) Avoiding sun exposure
2) Sun-protective clothing
3) Sunscreen
Sunscreen labeling

Broad-spectrum = Provides protection against both UVA + UVB

Only broad-spectrum sunscreens with SPF 15+ can claim to reduce the risk of skin cancer and early skin aging.

Water resistant: must specify if provides protection for 40 or 80 minutes

Sunscreen Labeling According to 2011 Final Rule

If used as directed with other sun protection measures, this product reduces the risk of skin cancer and early skin aging, as well as helps prevent sunburn.

Only products labeled with both “Broad Spectrum” AND SPF 15 or higher have been shown to provide all these benefits.
Sunscreen Types

• Chemical sunscreen
  – More cosmetically elegant

• Mineral sunscreen
  – More environmentally friendly
People apply about 25% to 50% of the amount of sunscreen used in testing to determine SPF ratings.

How Much Sunscreen Do You Need?
It takes an ounce to adequately cover your body head to toe when you’re in a bathing suit. That’s the amount in the palm on the right. Most people use half that amount (left)—and half the sunscreen means half the SPF protection.

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Sunscreen Tips

• Use a sunscreen with the highest SPF that you ‘like using’ *every day!*
• Apply sunscreen 15-30 minutes before you go outside
• **Apply liberally!**
  – At least 1 teaspoon per body part
• **Reapply** at least every 2 hours
• Reapply after swimming and sweating
Sunscreen Products

Sunscreens

Sunscreen Buying Guide
The ABCs of SPF
Sunscreen Lotions: Top-Rated by Consumer Reports

- La Roche-Posay Anthelios 60 Melt-In Sunscreen Milk ($27)
- Equate Sport Lotion SPF 50 ($12)
- Pure Sun Defense Disney Frozen Lotion SPF 50 ($6)
- Coppertone Water Babies Lotion SPF 50 ($12)
- Equate Ultra Protection Lotion SPF 50 ($10)
Sunscreen Sprays: Top-Rated by Consumer Reports

- Trader Joe's Spray SPF 50+ ($6)
- Banana Boat SunComfort Clear UltraMist Spray SPF 50+ ($10)
- Equate Sport Continuous Spray SPF 30 ($4.98)

Note: Use spray sunscreens carefully. The FDA is investigating potential risks associated with inhaling spray sunscreens, so use caution in children and avoid spraying directly on face.
Fact or Myth: Rigorous sun protection can cause vitamin D deficiency.

1) Fact
2) Myth
Conclusions Sunscreen use for daily and recreational photoprotection does not compromise vitamin D synthesis, even when applied under optimal conditions.
Conclusion: White individuals who protect themselves from the sun by seeking shade or wearing long sleeves may have lower 25(OH)D levels and be at risk for vitamin D deficiency. Frequent sunscreen use does not appear to be linked to vitamin D deficiency in this population.
Vitamin D Sources
Protect your skin!

Sun avoidance is the most effective way to protect your skin from the sun.

- Avoid peak hours 10AM-2PM

Sun-protective clothing provides immediate and long-lasting protection.

Sunscreens are an important component of sun protection.

- SPF 30+, broad-spectrum, water-resistant
- The best sunscreen is the one you will use!
Sunscreen is the most effective anti-aging product you can put on your skin.
What can you do to protect yourself from the sun?

Protect yourself in 5 ways

Slip  Slop  Slap  Seek  Slide

Sun protection at any age is important
• Thank you!