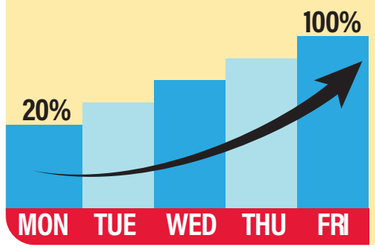
Prevent Heat Illness at Work

Outdoor and **indoor** heat exposure can be dangerous.

Ways to Protect Yourself and Others

Ease into Work. Nearly 3 out of 4 fatalities from heat illness happen during the first week of work.



- ✓ **New** and **returning** workers need to build tolerance to heat (acclimatize) and take frequent breaks.
- ✓ **Follow the 20% Rule.** On the first day, work no more than 20% of the shift's duration at full intensity in the heat. Increase the duration of time at full intensity by no more than 20% a day until workers are used to working in the heat.

Drink Cool Water

Drink cool water even if you are not thirsty — at least 1 cup every 20 minutes.

Take Rest Breaks

Take enough time to recover from heat given the temperature, humidity, and conditions.

Find Shade or a Cool Area

Take breaks in a designated shady or cool location.

Dress for the Heat

Wear a hat and light-colored, loose-fitting, and breathable clothing if possible.

Watch Out for Each Other

Monitor yourself and others for signs of heat illness.

If Wearing a Face Covering

Change your face covering if it gets wet or soiled. Verbally check on others frequently.

First Aid for Heat Illness

The following are signs of a medical emergency!

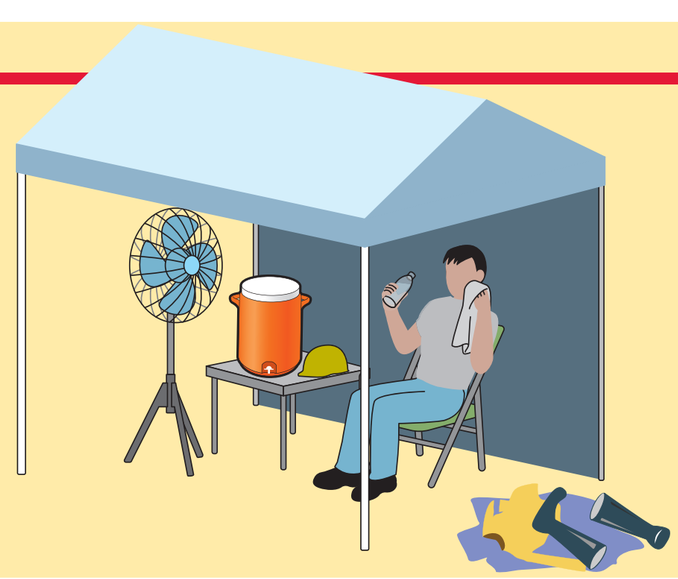
- Abnormal thinking or behavior
- Slurred speech
- Seizures
- Loss of consciousness

1. » CALL 911 IMMEDIATELY
2. » COOL THE WORKER RIGHT AWAY WITH WATER OR ICE
3. » STAY WITH THE WORKER UNTIL HELP ARRIVES

Watch for any other signs of heat illness and act quickly. When in doubt, call 911.

If a worker experiences:

- Headache or nausea
- Weakness or dizziness
- Heavy sweating or hot, dry skin
- Elevated body temperature
- Thirst
- Decreased urine output



Take these actions:

- » Give water to drink
- » Remove unnecessary clothing
- » Move to a cooler area
- » Cool with water, ice, or a fan
- » Do not leave alone
- » Seek medical care if needed

For more information: 1-800-321-OSHA (6742)
TTY 1-877-889-5627 www.osha.gov/heat

OSHA® Occupational Safety and Health Administration

Federal law entitles you to a safe workplace. You have the right to speak up about hazards without fear of retaliation. See **www.osha.gov/workers** for information about how to file a confidential complaint with OSHA and ask for an inspection.

OSHA 3431-05R 2021

Heat Illness Prevention Presenter Bio
Florinda M. Piano, M.D., M.P.H.

Dr. Piano will be speaking about heat related illnesses, covering heat exhaustion, heat stroke, heat rash and skin cancer. She will also cover their risk factors, evaluation, treatment, and prevention.

Florinda M. Piano, M.D., M.P.H., is board certified in family medicine and is a Diplomate of the American Board of Family Medicine. She graduated with a Bachelor of Science in Biology from the University of the Philippines and received her medical degree from DeLaSalle University. Dr. Piano completed her internship and residency, in family medicine, at King/Drew Medical Center in Los Angeles. She also received a Masters in Public Health from UCLA.

Dr. Piano's clinical areas of interest include women's health, menopause, hypertension, diabetes, geriatric and integrative medicine. Dr. Piano is a staff physician at Providence St. Joseph Medical Center. She served on the Board of Directors for Burbank Family Care, as well as the Advisory Board for Kali P. Chaudry Medical Group.

Heat Illness Prevention Resources

- Family Doctor
  - Website: https://familydoctor.org/
  - Heat Exhaustion/Heat Stroke: https://familydoctor.org/condition/heat-exhaustion-heatstroke/
- Environmental Protection Agency (EPA)
  - Sun Safety: https://www.epa.gov/sunsafety
- Occupational Safety and Health Administration (OSHA)
  - Heat Illness Prevention Campaign: www.osha.gov/heat
- National Institute for Occupational Safety and Health (NIOSH),
  - Heat Stress: https://www.cdc.gov/niosh/topics/heatstress/default.html
  - OSHA-NIOSH Heat Safety Tool App: https://www.cdc.gov/niosh/topics/heatstress/heatapp.html
- Canadian Centre for Occupational Health and Safety (CCOHS)
  - OSH Fact Sheet Hot Environments - Health Effects and First Aid https://www.ccohs.ca/oshanswers/phys_agents/heat_health.html
- IATSE Training Trust Fund
  - Website: https://www.iatsetrainingtrust.org/
  - TTF Safety First! curriculum: https://www.iatsetrainingtrust.org/safetyfirst
- IATSE Safety Hotline
  - (844) 422-9273
  - 844-IA-AWARE

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Sun Exposure and Heat Related Illness

Florinda M. Piano, M.D., M.P.H.

Diplomate, American Board of Family Medicine

Providence St. Joseph Medical Center

June 23, 2021

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Handouts

1. OSHA Heat Illness Prevention Poster
2. Dr. Florinda Piano’s Presenter Bio
3. Heat Illness Prevention Resources
4. PDF of PowerPoint Slides

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Florinda M. Piano, M.D., M.P.H.

Diplomate, American Board of Family Medicine

Providence St. Joseph Medical Center

Welcome

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Objectives

- Recognize heat related illness and the different degrees of severity.
- Review first aid management of heat related illness.
- Identify ways of preventing heat related illness.
- Describe different skin conditions and malignancy that occurs due to sun exposure.
- Describe different ways of sun protection.
- Focus on prevention of sun exposure and heat related illness.

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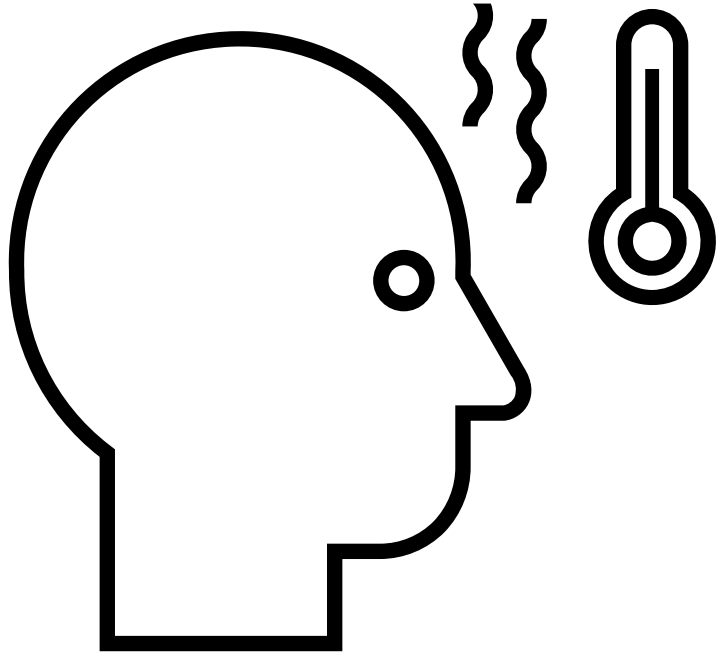
Heat Related Illness

- A physiologic insult that occurs when the body is unable to dissipate heat adequately .
- Leads to dysfunctional thermoregulation.
- Continuum of syndrome ranging from heat edema and exercise-associated muscle cramps to exercise-associated collapse, heat exhaustion, and life-threatening heat stroke.



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Epidemiology

- **Millions of U.S. workers are exposed to heat in their workplaces.**
- Majority of fatalities, 50% to 70%, occur in the first few days of working in warm or hot environments.
- The body needs to build a tolerance to the heat gradually over time. The process of building tolerance is called heat acclimatization. Lack of acclimatization represents a major risk factor for fatal outcomes.

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Epidemiology

- Incidence in U.S. high school athletes is 1.6 cases per 100,000 athletic exposures, or approximately 9,000 cases annually.
- U.S. Armed Forces incidence of 1.41 HRI and 0.38 HS cases per 1,000 person-years (2017)
- ER visit 5 per 10,000 (2006-2010), 75% HRI, 5.4% HS, 12% admission and 0.07% mortality

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Hazardous Heat Exposure: Outdoors/Indoors

Working Outdoors

- Movie Sets
- Outdoor Stages / Amphitheaters
- Festivals
- Sporting Events
- Theme Parks
- Construction

Working Indoors

- Working near sources of indoor heat-generating appliances, such as laundry rooms
- Loading docks and trucks
- Warehouses and shops without adequate air conditioning

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Thermoregulation

- Hypothalamus is responsible for thermoregulation by activating receptors in the skin and visceral organs to facilitate heat loss and maintain a normal core temperature (97-99F/36.6-38C).
- Conduction
- Convection
- Radiation
- Evaporation - high temperature and increased metabolic demand, primary mechanism for heat dissipation.

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TABLE 2

Spectrum of Heat-Related Illnesses

Severity	Type	Symptoms	Treatment	Physiologic response
Mild	Heat edema	Extremity swelling, occasional facial flushing	Move from heat, elevate lower extremities; diuretics not indicated	Cutaneous vasodilation, vascular leak resulting in increased interstitial fluid
	Exercise-associated muscle cramps (heat cramps)	Muscle spasms, moist and cool skin, normal body temperature	Move from heat, rest, leg elevation, stretching, massage, oral electrolyte/fluid repletion	Muscular overuse, neuromuscular hyperactivity, fluid and electrolyte depletion
	Heat rash (miliaria rubra)	Eruption of red papules or pustules, primarily on neck, upper extremities, trunk, and groin	Remove clothing, evaporative cooling, avoid topical emollients	Vasodilation of skin vessels with obstructed sweat ducts/pores from macerated stratum corneum; secondary infection possible
Moderate	Exercise-associated collapse (heat syncope)	Lightheadedness, orthostasis, dizziness, transient loss of consciousness immediately following cessation of activity	Rest in supine position, elevate legs, oral or intravenous rehydration; prolonged recovery or significant cardiac risk factors should prompt further evaluation	Profound peripheral vasodilation, volume depletion and decreased vasomotor tone, decrease in venous return and subsequent syncope or presyncope
	Heat exhaustion	Thirst, headache, fatigue, tachycardia, weakness, ataxia, syncope, nausea, vomiting, diarrhea, cold and clammy skin, core temperature 101° to 104°F (38.3° to 40°C)	Move from heat, rest in supine position, leg elevation, evaporative cooling, intravenous or oral rehydration; delayed response requires further evaluation	Mild thermoregulatory dysfunction, hypovolemia with splanchnic vasoconstriction and hypotension, early multiorgan dysfunction
Severe	Heat stroke	Altered mental status, seizures, coma, tachycardia, hypotension, hyperventilation, diaphoresis (skin may be wet or dry at time of collapse), core temperature ≥ 105°F (40.5°C)	Move from heat; manage airway, breathing, and circulation; cold/ice water immersion; intravenous rehydration; hospital admission	Severe thermoregulatory dysfunction resulting in endotoxin leakage, systemic inflammatory response syndrome, cellular apoptosis, and multiorgan dysfunction

Information from reference 3.

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Spectrum of Heat-Related Illnesses - Mild
Heat Edema

- **Symptoms:** Extremity swelling, occasional facial flushing
- **Treatment:** Move from heat, elevate lower extremities; diuretics not indicated
- **Physiologic Response:** Cutaneous vasodilation, vascular leak resulting in increased interstitial fluid

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Spectrum of Heat-Related Illnesses - Mild
Exercise-associated muscle cramps (heat cramps)

- **Symptoms:** Muscle spasms, moist and cool skin, normal body temperature
- **Treatment:** Move from heat, rest, leg elevation, stretching, massage, oral electrolyte/fluid repletion
- **Physiologic Response:** Muscular overuse, neuromuscular hyperactivity, fluid and electrolyte depletion

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Spectrum of Heat-Related Illnesses - Moderate
Exercise-associated collapse (heat syncope)

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Spectrum of Heat-Related Illnesses - Moderate
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- **Physiologic Response:** Mild thermoregulatory dysfunction, hypovolemia with splanchnic vasoconstriction and hypotension, early multiorgan dysfunction

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6 SIGNS OF HEAT STROKE

Not sweating (dehydrated)

Dry, hot, red skin

Dizziness, headache

Incoherence, unconsciousness

Nausea, vomiting

Fast, strong pulse

HHS.gov

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Spectrum of Heat-Related Illnesses - Severe

Heat stroke

- **Symptoms:** Altered mental status, seizures, coma, tachycardia, hypotension, hyperventilation, diaphoresis (skin may be wet or dry at time of collapse), core temperature ≥ 105°F (40.5°C)
- **Treatment:** Move from heat; manage airway, breathing, and circulation; cold/ice water immersion; intravenous rehydration; hospital admission
- **Physiologic Response:** Severe thermoregulatory dysfunction resulting in endotoxin leakage, systemic inflammatory response syndrome, cellular apoptosis, and multiorgan dysfunction

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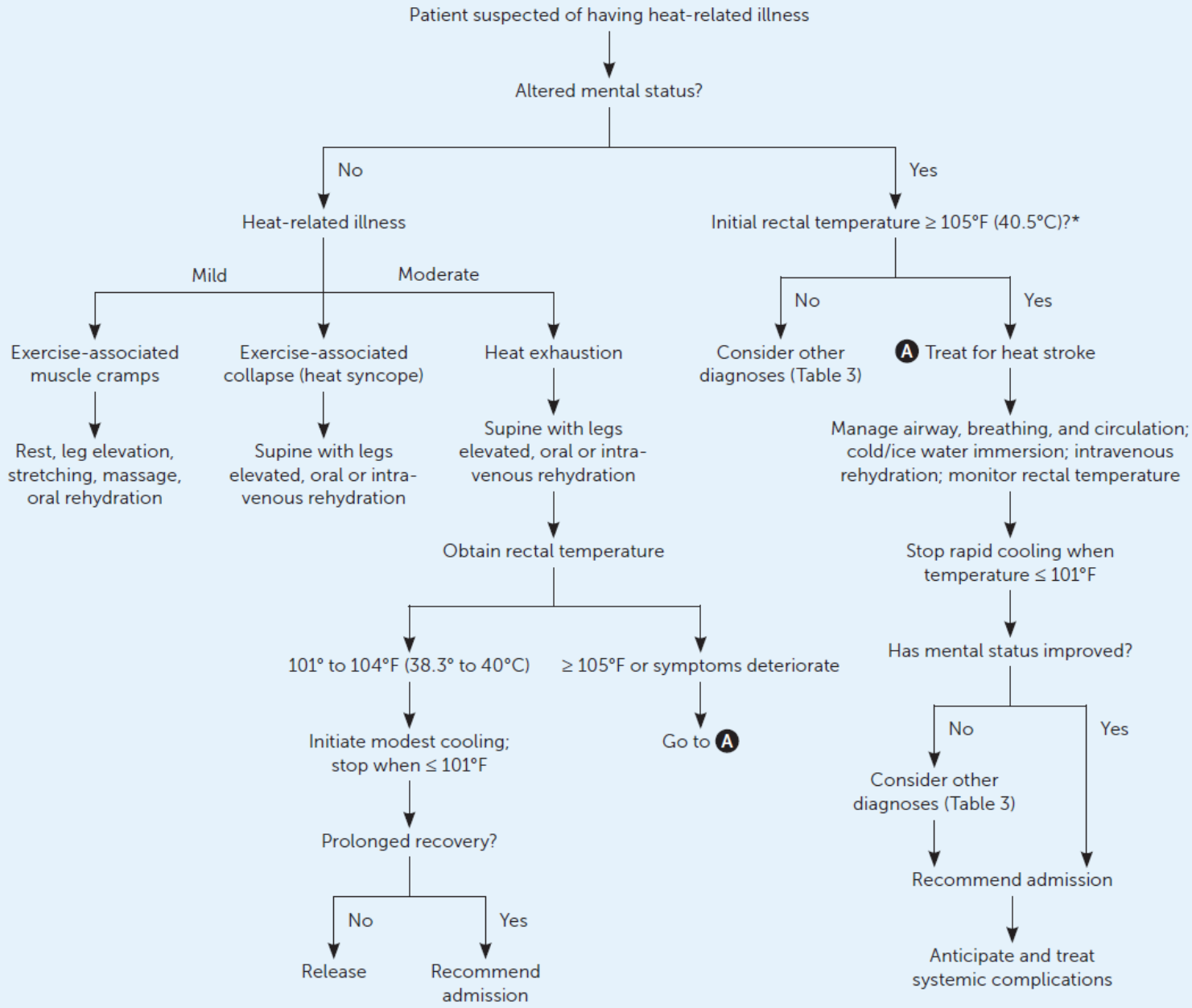
FIGURE 1



*—Initial temperature < 105°F or unknown may still represent heat stroke. Treat for heat stroke if clinical history is consistent with diagnosis.

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High Points

- Be aware of the symptoms and watch out for them
- Move the patient away from heat
- Cool the patient
- Hydrate
- Collapse - to the ER

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TABLE 1

Risk Factors for Heat-Related Illness

Drug and alcohol use

- Alcohol
- Amphetamines
- Anticholinergics
- Antidepressants
- Antihistamines
- Antipsychotics
- Beta blockers
- Benzodiazepines
- Calcium channel blockers
- Dietary supplements (primarily through ergogenic stimulants)
- Diuretics
- Illicit drugs (e.g., cocaine, heroin, phencyclidine [PCP], lysergic acid diethylamide [LSD])
- Laxatives
- Lithium
- Neuroleptics
- Phenothiazines
- Thyroid agonists

Environmental factors

- Absence of adequate breaks
- Absence of shelter or shade
- High humidity
- High temperatures
- Lack of access to water

Individual factors

- Age extremes (younger than 15 years or older than 65 years)
- Deconditioning or sedentary lifestyle
- Excessive clothing
- Inadequate sleep
- Lack of acclimatization
- Large muscle mass
- Male sex
- Obesity
- Preexisting dehydration

Medical conditions

- Cardiac disease
- Congenital disorder (e.g., ectodermal dysplasia, idiopathic anhidrosis)
- Diabetes mellitus
- Previous heat injury
- Recent or acute illness
- Sickle cell trait
- Skin abnormalities (e.g., burns, psoriasis, eczema, radiation)

Adapted with permission from Pryor RR, Bennett BL, O'Connor FG, Young JM, Asplund CA. Medical evaluation for exposure extremes: heat. Wilderness Environ Med. *2015;26(4 suppl):S71.*

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Drug and alcohol use

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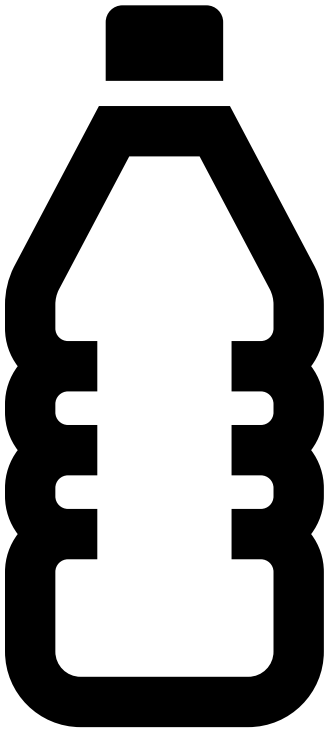
Prevention (OSHA)

- **Water:** Employers should provide cool water for workers to drink. Proper hydration is essential to prevent heat-related illness.

- **Rest:** When heat stress is high, employers should require workers to take breaks. The length and frequency of rest breaks should increase as heat stress rises.

- **Shade:** Workers should be given a cool location where they can take their breaks and recover from the heat. Outdoors, this might mean a shady area, an air-conditioned vehicle, a nearby building or tent, or an area with fans and misting devices.

Prevention Strategies (NATA & ACSM)



- Acclimatization
- Adequate hydration;
- Wearing loose-fitting, light-colored clothing
- Avoidance of activities during extreme temperatures.
- If avoidance is not possible, frequent water breaks, scheduled rest and recovery cycles, and close monitoring is recommended.
- Supervisory personnel (e.g., coaches, military trainers) should be familiar with symptoms of heat-related illnesses and initial treatment.

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Prevention Challenges

- Elderly patients: family or caretakers are encouraged to visit often, ensure adequate water intake, verify operable air conditioning, asses for signs/symptoms of HRI.
- Homeless people: cities should create contingency plans for heat waves, including provision of shelters, providing established water sources and optimizing medical care.
- Never leave infants or children in a parked car, even if the windows are cracked open.

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Hydration in Action

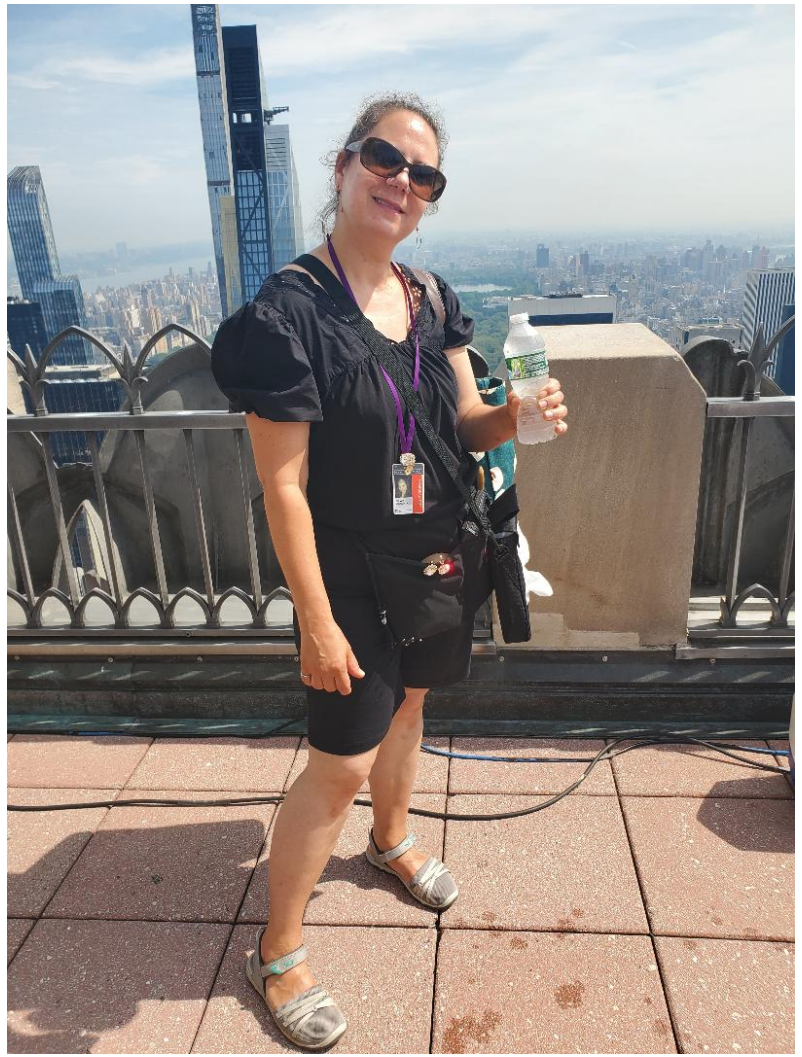

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FIGURE 2

Relative humidity (%)	Temperature (°F)															
	68.0	71.6	75.2	78.8	82.4	86.0	89.6	93.2	96.8	100.4	104.0	107.6	111.2	114.8	118.4	122.0
0	58.6	60.9	64.3	65.5	67.7	69.9	72.1	74.3	76.4	78.5	80.6	82.6	84.7	86.6	88.6	90.5
5	59.6	62.1	65.6	67.0	69.3	71.7	74.0	76.4	78.6	80.9	83.1	85.3	87.5	89.9	92.1	94.2
10	60.7	63.3	66.9	68.4	70.8	73.3	75.8	78.2	80.7	83.0	85.5	88.0	90.3	92.8	95.1	97.6
15	61.7	64.5	68.1	69.6	72.2	74.8	77.4	80.0	82.6	85.2	87.8	90.2	92.8	95.4	98.0	
20	62.7	65.6	69.4	70.9	73.6	76.3	79.2	81.8	84.5	87.1	89.8	92.5	95.2	97.8		
25	63.8	66.7	70.5	72.2	75.1	77.8	80.6	83.4	86.2	89.0	91.8	94.6	97.4			
30	64.8	67.6	71.7	73.4	76.3	79.2	82.1	84.9	87.8	90.8	93.6	96.6	99.4			
35	65.6	68.6	72.7	74.6	77.5	80.5	83.5	86.4	89.4	92.4	95.3	98.3				
40	66.7	69.6	73.8	75.7	78.8	81.8	84.8	87.8	90.9	94.0	97.0					
45	67.5	70.6	74.8	76.8	79.9	83.0	86.1	89.2	92.3	95.4	98.6					
50	68.4	71.5	75.8	77.8	81.1	84.1	87.4	90.5	93.7	96.9						
55	69.3	72.4	76.7	78.8	82.1	85.3	88.5	91.9	95.1	98.3						
60	70.1	73.3	77.7	79.8	83.2	86.4	89.8	93.1	96.3	99.6						
65	70.9	73.8	78.6	80.9	84.2	87.5	90.8	94.1	97.5							
70	71.7	75.0	79.5	81.7	84.9	88.6	91.9	95.3	98.6							
75	72.4	75.9	80.3	82.7	86.1	89.6	92.9	96.4								
80	73.2	76.7	81.2	83.6	87.1	90.4	93.9	97.4								
85	74.0	77.4	82.0	84.5	88.0	91.5	94.9	98.5								
90	74.7	78.2	82.9	85.3	88.9	92.3	95.9	99.4								
95	75.5	78.9	83.6	86.1	89.6	93.2	96.8									
100	76.1	79.7	84.4	86.9	90.5	94.1	97.7									

Temperature	Category	Risk level
77° to 81.9°F (25° to 27.7°C)	Caution	Possible fatigue with prolonged exposure
82° to 84.9°F (27.8° to 29.4°C)	Extreme caution	Heat-related illness possible with long exposure
85° to 88.9°F (29.5° to 31.6°C)	Danger	Heat stroke possible, heat-related illness likely
≥ 89°F (≥ 31.7°C)	Extreme danger	High risk of heat stroke

Wet bulb globe temperature based on temperature and humidity, assuming a clear sky (maximum solar load) and atmospheric pressure of 1 ATA (760 mm Hg).

Adapted with permission from Ariel's Checklist. WBGT chart. https://arielschecklist.com/wbgt-chart. Accessed September 13, 2018.

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Heat Rash

- Heat rash (miliaria) occurs when the flow of sweat is obstructed, usually due to hot, humid weather or overdressing.
- Prickly heat (miliaria rubra) (A) is a type of heat rash that appears as clusters of small, red bumps that produce a pricking or stinging sensation. Miliaria crystalline (B) appears as clear, fluid-filled bumps that generally produce no other signs or symptoms.
- Heat rash isn't serious and usually resolves when the affected area cools. Cool compresses or a cool bath might help. You can prevent heat rash by wearing loose, lightweight clothing and avoiding excessive heat and humidity.

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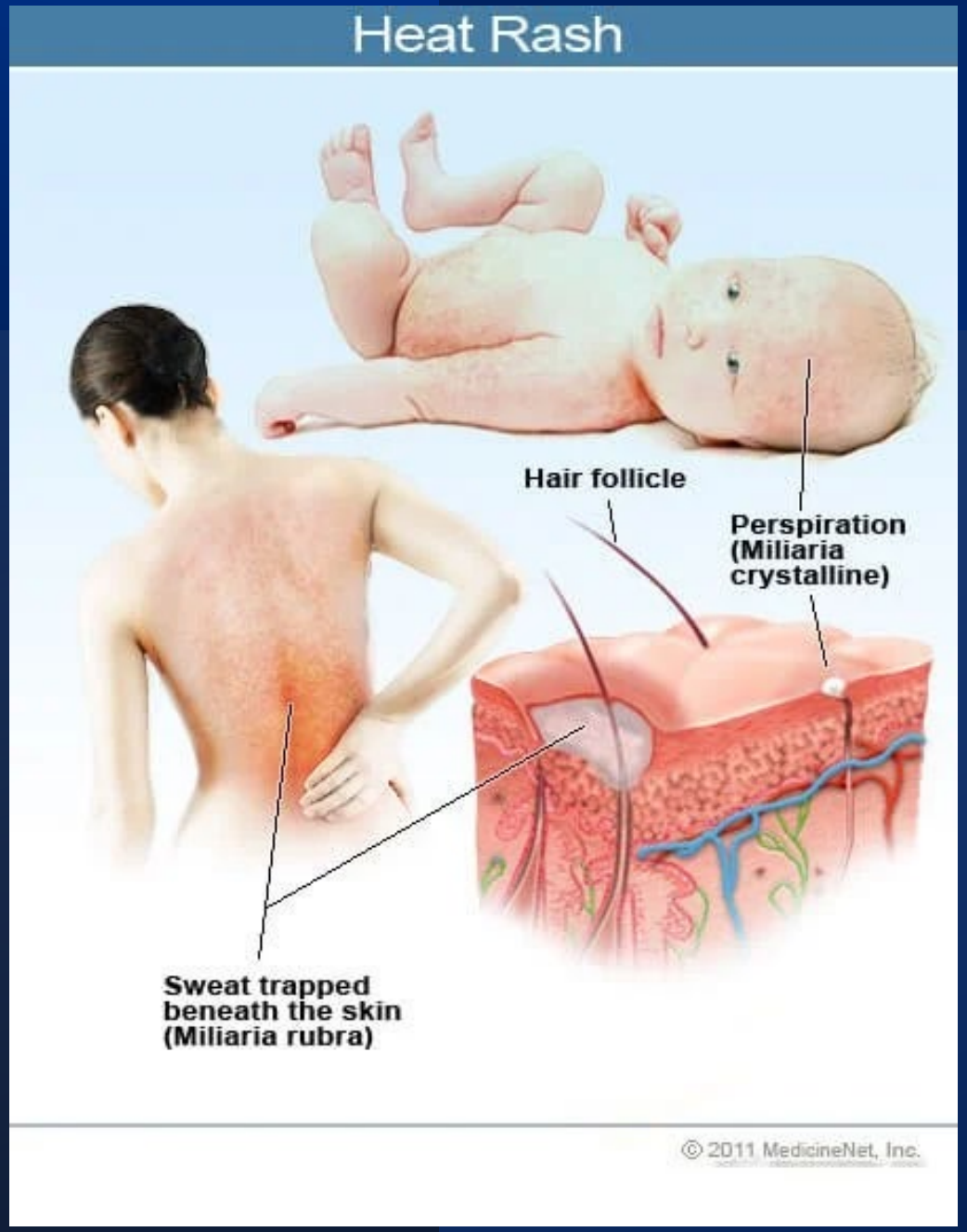
Heat Rash



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Intertrigo

- Intertrigo is inflammation of skinfolds caused by skin-on-skin friction. It is a common skin condition affecting opposing cutaneous or mucocutaneous surfaces.
- Most commonly found in the groin, axillae, and inframammary folds. It also may affect antecubital fossae; umbilical, perineal, or interdigital areas; neck creases; and folds of the eyelids.
- Moist, damaged skin associated with intertrigo is a fertile breeding ground for various microorganisms, and secondary cutaneous infections commonly are observed in these areas.

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Intertrigo

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Skin Cancer

- One in six Americans develops skin cancer at some point.
- Skin cancer accounts for one third of all cancers in the United States.
- **Sun exposure** remains the most important risk factor for all skin cancer.

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Actinic Keratoses

- Solar keratoses
- Often arise on chronically sun-damaged body areas such as the face, ears, arms and hands.
- Often ill-defined and irregular, ranging from 1 mm to several centimeters in size
- May be macular or papular, and generally have a scaly appearance
- Patients often have multiple lesions
- Lesions are usually pale brown or flesh-colored but may be yellow, reddish-brown or even dark brown or black following trauma

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Actinic keratoses. Note the scaly appearance of the multiple lesions. Lesions of actinic keratosis may be macular or papular.

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Squamous Cell Carcinoma

- Usually, the result of a high lifetime cumulative dose of solar radiation
- Chronically injured skin
- Organ transplant patients are 65x more likely to develop SCC
- Second most common skin cancer, comprising 20 percent of all cases of nonmelanoma skin cancer.
- Most common tumor in elderly patients
- 60 percent of squamous cell carcinomas occur at the site of a previous actinic keratosis.
- 50 to 60 percent of squamous cell carcinomas occur on the head and neck

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Squamous Cell Carcinoma

- Other common sites include the hands and forearms, upper trunk and lower legs
- Firm, smooth or hyperkeratotic papule or plaque, often with central ulceration
- Patient describes as non-healing lesion that bleeds w/ min trauma
- Cryotherapy, Curettage with electrodesiccation or freezing, Mohs' micrographic surgery, Radiation therapy

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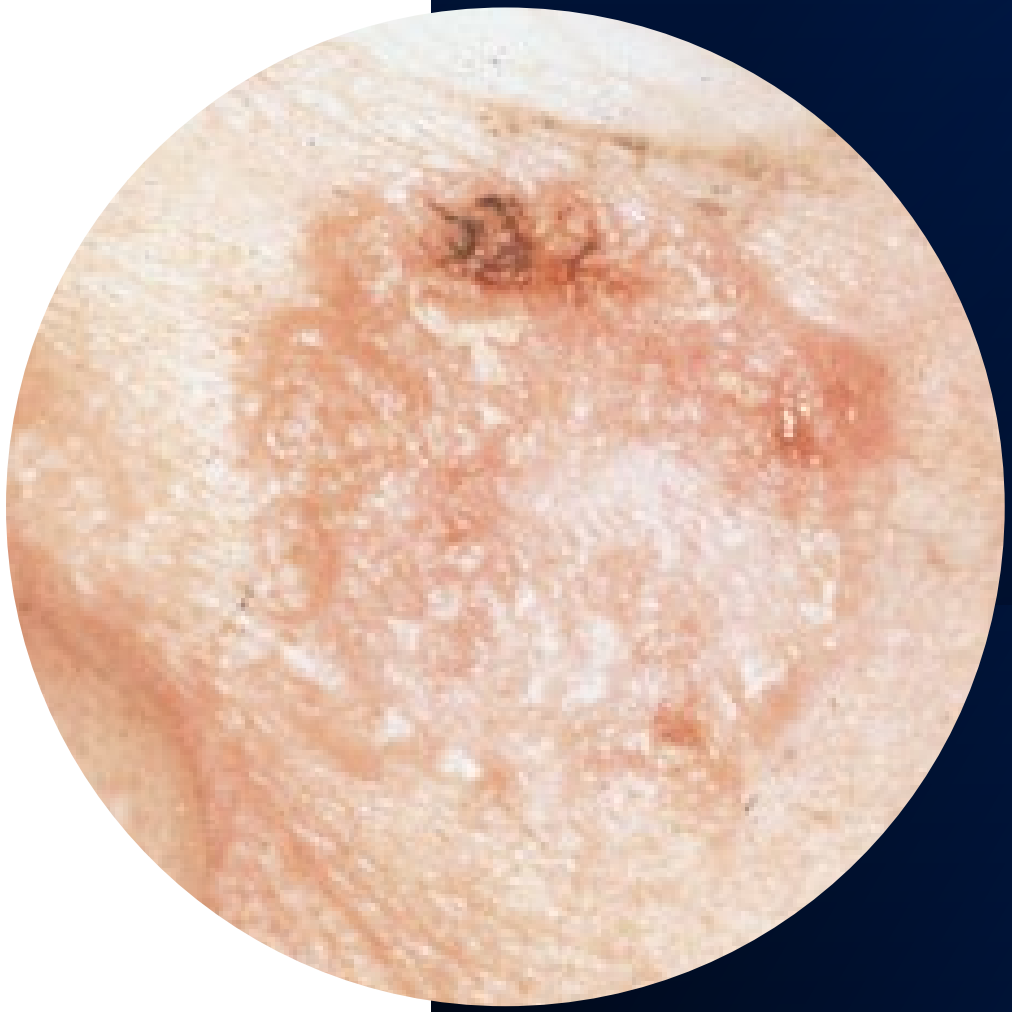
Squamous cell carcinoma of the face.



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Basal Cell Carcinoma

- The most common skin neoplasm
- Basal cell carcinomas are usually located on the face or the backs of the hands. 85% head and neck.
- Typically grow slowly and generally spread only locally
- Metastasis is quite rare
- Intermittent sun exposure
- Presence of any nevus on an extremity is associated with increased risk of BCC
- Cryotherapy, Curettage with electrodesiccation or freezing, Mohs' micrographic surgery, Radiation therapy

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Common types of basal cell carcinoma. (A) Nodular; (B) pigmented; (C) sclerosing; (D) superficial. Note the characteristic rolled borders and telangiectasias.

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Malignant Melanoma

- Four types of malignant melanoma
- Superficial spreading type is the most common among whites and accounts for 70 percent of all melanomas
- Usually occurs in adults and may develop anywhere on the body but appears with increased frequency on the upper backs of both men and women and on the legs of women

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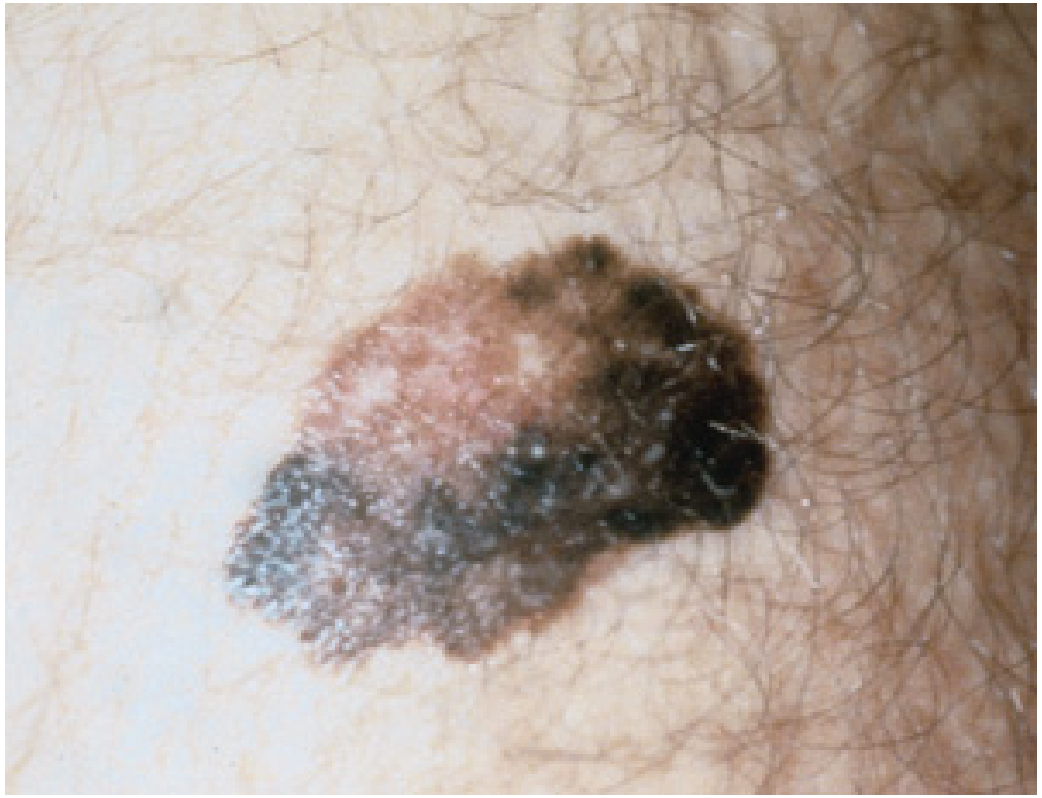
Superficial spreading malignant melanoma.



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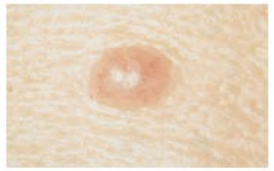
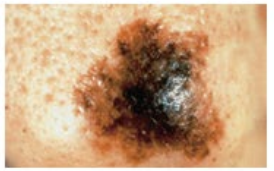
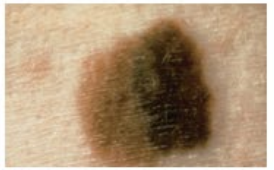
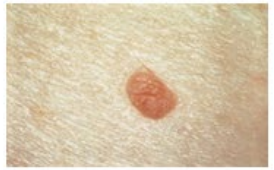
The ABCD Checklist for Detecting Cutaneous Melanoma

CHECKLIST ITEM	*REASSURING ELEMENTS*	*NONREASSURING ELEMENTS*
A = *A*symmetry Suggestive of melanoma if the lesion is bisected and the halves are not identical		
	Symmetric (benign)	Asymmetric (malignant melanoma)
B = *B*order irregularity Suggestive of melanomaif the border is uneven or ragged		
	Borders are even (benign)	Borders are irregular (malignant melanoma)
C = *C*olor variation Suggestive of melanoma if there is more than one shade of pigment		
	One shade/even color (benign)	Two or more shades/uneven color (malignant melanoma)
D = *D*iameter Suggestive of melanoma if the diameter is greater than 6 mm		
	Diameter < 6 mm (benign)	Diameter > 6 mm (malignant melanoma)

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Prevention of Skin Cancer

- Sun exposure during the peak ultraviolet-B (UV-B) hours should be avoided or minimized. The peak UV-B period is from 10 a.m. to 4 p.m.
- Sunscreen with a solar protection factor (SPF) of at least 15 should be generously applied.
- In addition to use of an appropriate sunscreen, persons should wear wide-brimmed hats, sunglasses and protective clothing (e.g., tightly woven fabrics and long-sleeved shirts) when sun exposure during peak UV-B hours cannot be avoided.
- Deliberate sun tanning and use of tanning parlors should be avoided.

Information from Gloster HM, Brodland DG. The epidemiology of skin cancer. Dermatol Surg 1996; 22:217–26.

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Reasons For Not Using Sunscreen

- I never burn.
- I’m very dark skinned and I don’t need it.
- I have a base tan, so I don’t need it.
- It takes too long to apply.
- It’s too greasy/sticky/thick.
- The sunscreen is worse for me, it causes cancer.

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13.99
6.99
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Baby

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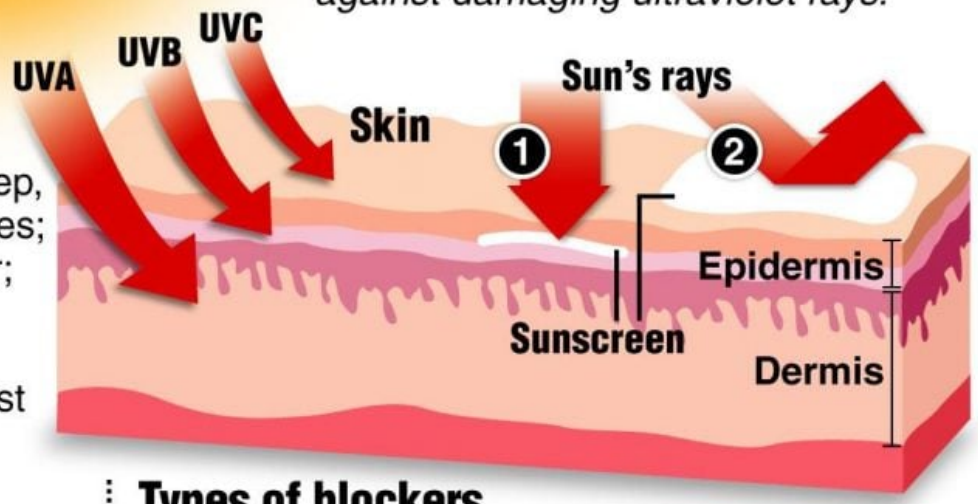
Blocking the sun

About 8,000 Americans die from melanoma each year. New labels would clarify sunscreen's effectiveness against damaging ultraviolet rays.

Types of rays

- **UVA rays**
  Penetrate deep, weaken tissues; cause cancer; not all suncreens protect against these rays
- **UVB rays**
  Only penetrate epidermis; cause sunburn; SPF (sunburn protection factor) only protect against these rays
- **UVC rays**
  Mostly blocked by Earth's atmosphere



Types of blockers

1 Chemical
Sunscreen penetrates upper skin; creates UVA, UVB absorbing layer

2 Physical
Sunscreen adds protective layer on top of skin; reflects UVA, UVB sunlight

Change the label

Proposed label changes by the FDA:
- Four-star rating system for UVA protection
- UVB will appear alongside SPF protection
- Eliminate unsupported, misleading claims

Source: How Stuff Works, U.S. Food and Drug Administration, Skin Cancer Foundation
Graphic: Melina Yingling

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Sunscreen

- Apply 15 minutes before sun exposure.
- Reapply after 40-80 minutes of swimming/sweating; immediately after towel drying and at least every 2 hrs.
- Water resistance claims, for 40 or 80 minutes, tell how much time you can expect to get the labeled SPF-level of protection while swimming or sweating.
- Use broad spectrum sunscreens with an SPF value of 15 (93%) or higher regularly and as directed. AAD rec 30(97%)
- Apply enough sunscreen to cover all skin that clothing will not cover. Most adults need about 1 ounce — or enough to fill a shot glass — to fully cover their body.

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Reef Safe Sunscreen

- Hawaii is the first state in the U.S. to ban the sale of sunscreen containing the coral-harming chemicals oxybenzone and octinoxate.
- Oxybenzone and octinoxate are believed to cause coral bleaching.
- The new law went into effect January 1, 2021
- Avoid sunscreens containing petrolatum, commonly known as mineral oil, which takes years to biodegrade, and are known to be harmful or fatal to aquatic life and waterfowl.
- Avoid sunscreens with high content of Titanium Dioxide. This mineral does not biodegrade and is found to react in warm seawater to form hydrogen peroxide which is harmful to all sea life.

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Protect Your Eyes With Sunglasses

- Choose sunglasses with a UV400 rating or “100% UV protection” on the label. These sunglasses block more than 99% of UVA and UVB radiation and provide the most protection against UV rays.
- Do not mistake dark-tinted sunglasses as having UV protection. The darkness of the lens does not indicate its ability to shield your eyes from UV rays. Many sunglasses with light-colored tints – such as green, amber, red, and gray – can offer the same UV protection as very dark lenses.
- Consider large, wraparound-style frames, which may provide more UV protection because they cover the entire eye socket.
- Know that pricier sunglasses don’t ensure greater UV protection.
- Cataract, macular degeneration, pterygium, skin cancer of eyelid

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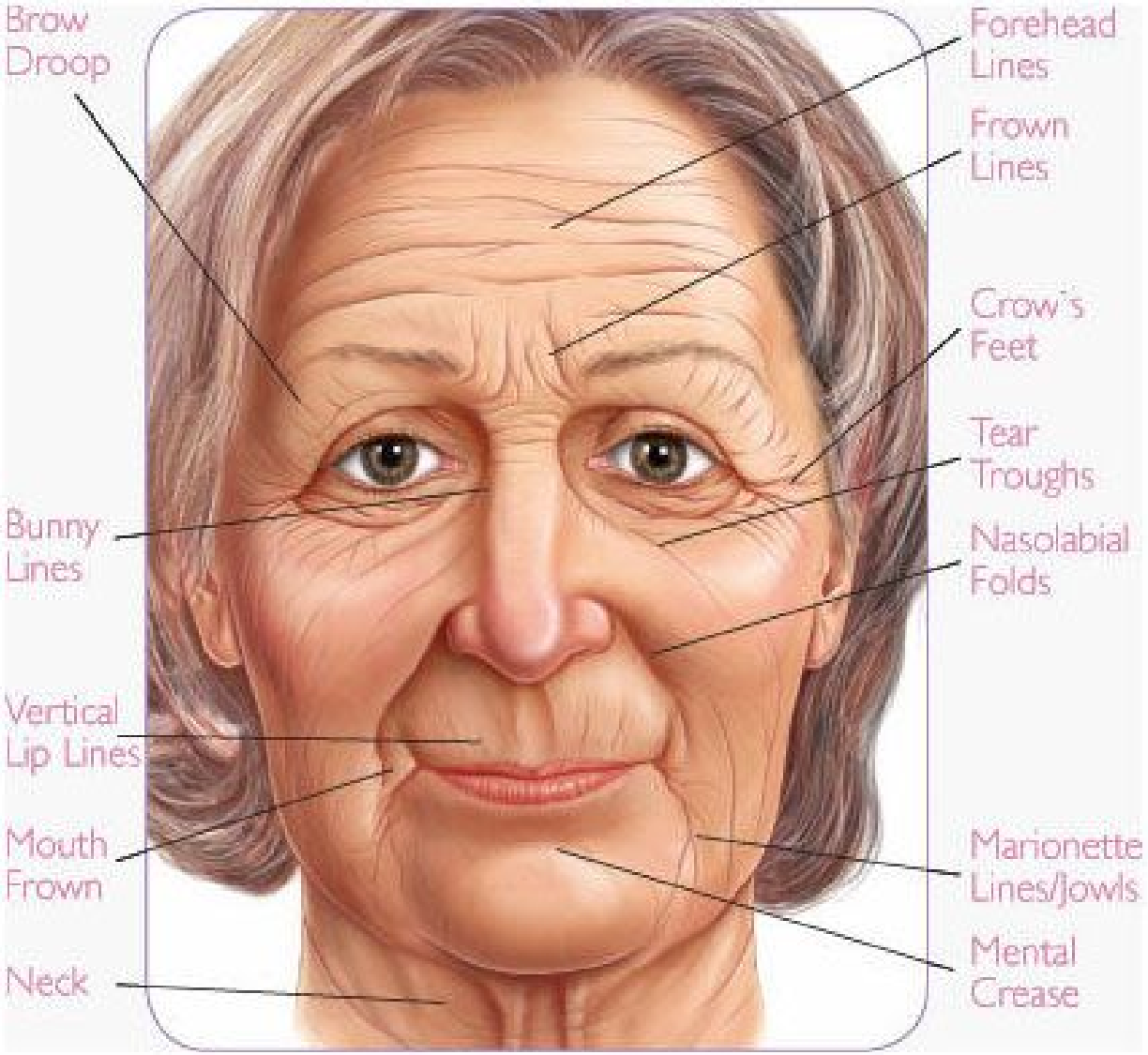
Sunscreen is the best Anti-Aging product



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Summary

- HRI Prevention: Water, Rest, Shade
- HRI Initial Management: Move away from heat, cool, hydrate. Collapse- to the ER.
- Skin Cancer: ABCD
- Skin Cancer Prevention: 10AM to 4PM, Sunscreen, Sunglasses, UV protective clothing, Hat
- A stitch in time saves nine.

Questions?

IATSE Safety Hotline

(844) 422-9273

844-IA-AWARE

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OSHA-NIOSH Heat Safety Tool App

To download visit:
https://www.cdc.gov/niosh/topics/heatstress/heatapp.html

Providence St. Joseph Health

THE COMMUNITIES WE SERVE

Providence Health & Services
Alaska

Providence Health & Services
Western Washington, including Swedish Health Services and Pacific Medical Centers

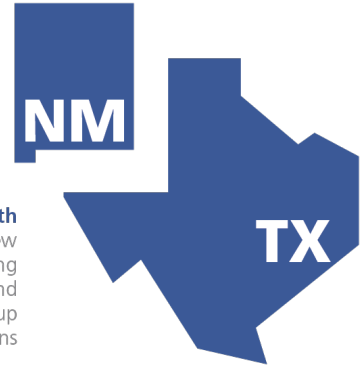
Providence Health & Services
Eastern Washington/Western Montana, including Kadlec Regional Medical Center

Providence Health & Services
Oregon
Providence Health Plan

St. Joseph Health
Northern California (Humboldt, Napa, Sonoma Counties) including St. Joseph Heritage Healthcare

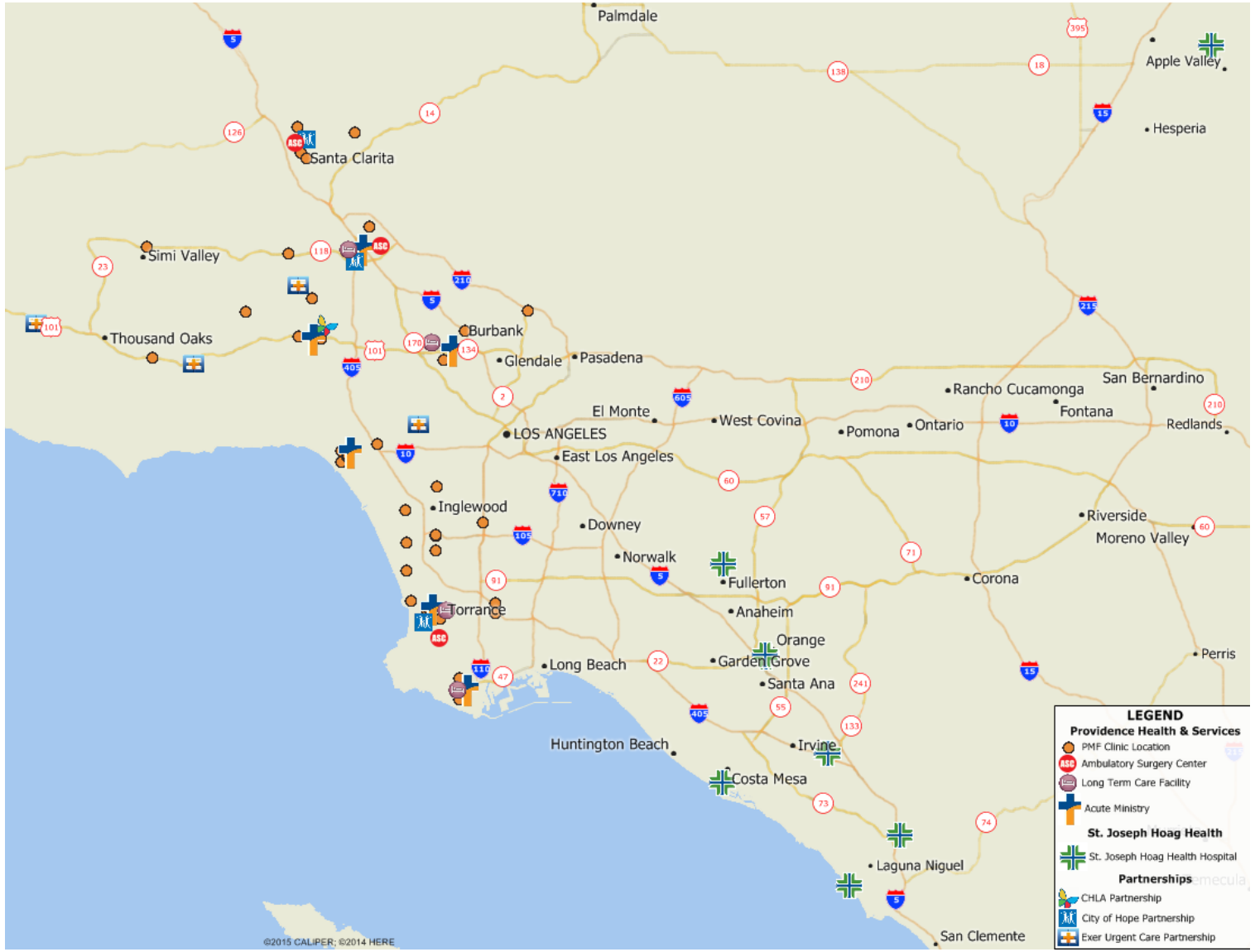
Providence Health & Services
Southern California (Los Angeles County), including Facey Medical Foundation

St. Joseph Health
Southern California (Orange and San Bernardino Counties) including Hoag and St. Joseph Heritage Healthcare



St. Joseph Health
West Texas/Eastern New Mexico, including Covenant Health and Covenant Medical Group FirstCare Health Plans

Southern California Region



West Magnolia Medical Center

Dr. Florinda M. Piano

2121 W Magnolia Blvd, Burbank,

California 91506, United States

(818) 955-8877

IATSE ENTERTAINMENT & EXHIBITION INDUSTRIES
TRAINING TRUST FUND
PROVIDING TRAINING OPPORTUNITIES FOR THE IATSE WORKFORCE

Interested in learning more about Safety and Health hazards in your workplace?

Sign-up for **TTF Safety First!** through the IATSE Training Trust Fund. The **TTF Safety First!** curriculum has 19 online safety modules to choose from, including a 45-minute Hazard Identification & Safety in the Work Environment course.

For more information, visit:
https://www.iatsetrainingtrust.org/safetyfirst

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Resources

- Family Doctor Website: https://familydoctor.org/
- Environmental Protection Agency (EPA), Sun Safety: https://www.epa.gov/sunsafety
- Occupational Safety and Health Administration (OSHA), Heat Illness Prevention Campaign: www.osha.gov/heat
- National Institute for Occupational Safety and Health (NIOSH), Heat Stress: https://www.cdc.gov/niosh/topics/heatstress/default.html
- Canadian Centre for Occupational Health and Safety (CCOHS), OSH Fact Sheet Hot Environments - Health Effects and First Aid https://www.ccohs.ca/oshanswers/phys_agents/heat_health.html

Thank You!

Providence St. Joseph Medical Center:
https://www.providence.org/locations/saint-joseph-medical-center

IATSE Entertainment & Exhibition Industries Training Trust Fund:
https://www.iatsetrainingtrust.org/

TTF Safety First! Curriculum:
https://www.iatsetrainingtrust.org/safetyfirst

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Sun Exposure and Heat Related Illness

Florinda M. Piano, M.D., M.P.H.

Diplomate, American Board of Family Medicine

Providence St. Joseph Medical Center

June 23, 2021