

Heat Related Illness and Medication Training

April 2021

Key Messages

- Everyone is at risk of heat-related illness.
- Some people are more at risk of heat-related illness including those who are old or young, or have co-morbidities, cognitive impairment and poor social support.
- Some medicines can increase the risk of heat-related illness or may be less effective or more toxic when stored at high temperatures.
- Health professionals can help reduce heat-related illness by identifying at-risk people and implementing strategies to reduce risk.
- Advance planning may help to reduce heat-related effects on clients and staff.

Heat – How it affects the body

- In extreme heat, body temperature regulation is affected:
- The body can lose heat to, and gain heat from, the environment.
- Heat loss is controlled by the flow of blood to the skin and evaporation of sweat.
- When the environment is hot, sweating is the main means by which the body can increase heat loss.
- Sweating and heat loss can be impaired by humidity, excess fat, skin disorders and excessive layers of clothing.
- Heat loss can be helped by wind or fanning, and water.
- Dehydration is another side effect of extreme heat:
- It is possible to sweat up to 4 gallons per day.
- Thirst does not match all fluids lost by sweating, even if fluids are freely taken.
- Mild to moderate dehydration increases cardiac work and reduces fluid available for sweating.
- Even mild dehydration is associated with increased risk of injury, heat stress illness and poorer performance of complex tasks.

Prevention of Heat Illness

During periods of high temperature and humidity, there are things everyone (particularly people at high risk) should do to lessen the chances of heat illness:

- * Avoid over-exertion, particularly during warmer periods of the day
- * Apply sun screen as needed
- * Keep windows shut, and draperies, shades or blinds drawn during the heat of the day; open windows in the evening or night hours when the air outside is cooler
- * Move to cooler rooms during the heat of the day
- * Drink plenty of fluids
- * If not on a low salt diet, sports drinks or salty snacks can help replace salt lost to sweating
- * Dress in loose fitting, light-colored clothing



Major Antipsychotic Medications

Trade Name	Generic Name
Abilify, Aristada	Aripiprazole
Clozaril, Fazaclor, Versacloz	Clozapine
Fanapt	Iloperidone
Geodon	Ziprasidone
Haldol	Haloperidol
Invega, Sustenna	Paliperidone
Latuda	Lurasidone
Loxitane	Loxapine
Navane	Thiothixene
Prolixin	Fluphenazine
Thioridazine	Thioridazine
Rexulti	Brexpiprazole
Risperdal/Consta	Risperidone
Saphris	Asenapine
Seroquel	Quetiapine
Stelazine	Trifluoperazine
Thorazine	Chlorpromazine
Trilafon	Perphenazine
Vraylar	Cariprazine
Zyprexa/Relprev	Olanzapine

NJ Department of Human Services
Division of Mental Health and Addiction Services

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Summer Heat and Sun Risks When Taking Psychiatric Medications



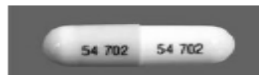
Antipsychotic Medications Affect Body Heat Regulation

Antipsychotic medications may impair the body's ability to regulate its own temperature. During hot and humid weather, individuals taking major tranquilizers are at risk of developing excessive body temperature (or hyperthermia), which can be fatal. Individuals with chronic medical conditions are especially vulnerable (e.g., heart and pulmonary disease, diabetes, alcoholism, etc.)

Heat exhaustion is the most common heat-related condition. It is most likely to occur in people who are involved in outdoor physical activity during heat waves.

Heat stroke is a more serious condition of dehydration and salt depletion which occurs mostly during heat waves and can be life threatening.

Lithium



Patients taking Lithium will also need to be careful during hot weather. Because Lithium is a salt, if you lose a lot of fluid quickly through perspiration in hot weather, your lithium level may rise quickly. Signs of lithium toxicity (level too high) include dizziness, unsteadiness, tremor, slurred speech, lethargy, and confusion. Be sure you keep hydrated in hot weather and go indoors to cool down. If you think you have signs of lithium toxicity call a doctor or go to the emergency room immediately.



Heat Exhaustion

Heat exhaustion can occur in both active and sedentary people. It happens suddenly and may be quite brief. A doctor should be called. Recovery may be spontaneous, or intravenous fluids may be needed to prevent unconsciousness.

Symptoms of heat exhaustion include:

- * Irritability or change in behavior
- * Low or normal temperature
- * Slightly low blood pressure
- * Rapid, full pulse and heartbeat
- * Cold, pale skin (may be ashen gray)
- * Profuse perspiration
- * Dizziness, headache, and weakness
- * Nausea, vomiting
- * Cramps in the abdominal area or in the extremities

Treatment

If a person displays symptoms of heat exhaustion, he or she should be:

- * Moved to a cooler place as soon as possible
- * Given water or other liquids immediately (there is no need for salt)
- * Stop all activity and rest for a short period

Heat Stroke

Heat stroke, the most serious heat illness, occurs mostly during heat waves and, if left untreated, can lead to death. Individuals with chronic illnesses are most vulnerable to heat stroke.

Symptoms of heat stroke include:

- * Agitation, confusion, seizures, lethargy, or coma (all may be first symptoms)
- * High body temperature (104°F or above)
- * High blood pressure initially (shock may follow, resulting in low blood pressure)
- * Rapid pulse and heartbeat
- * Rapid, shallow breathing if the person is moving about; slow and deep breathing if the person is still
- * Hot, dry, flushed skin

Treatment

As soon as you recognize the signs of heat stroke, take immediate action:

- * Call 911 immediately
- * Loosen or remove outer layers of individual's clothing
- * Move to a cool place
- * Immerse individual in ice water or try to bring down body temperature with cold compresses or a cold water shower
- * Use CPR, if needed
- * Replace fluids and sodium only under medical orders

Client Education

- Identify patients at risk of heat-related illness.
- Take the opportunity to educate those at risk how to manage their health during hot weather.
- **Provide all clients with the handout " Summer Heat and Sun Risks for Antipsychotic Medication Users" prepared by NJ DMHAS v.2016**
- Advise them on how to adjust their behaviour, store and take medicine, and drink fluids during hot weather.
- Encourage appropriate behaviour such as reducing excessive clothing and using cooling devices at home and discourage avoidance of fluids due to continence issues.
- Educate carers of children, older people and people with cognitive impairment or disability.