



# Recommendations for Potassium Iodide (KI) Use During a Radiological Disaster

**Read this information carefully and keep it with your tablets.**

## **What could happen following a radiation release?**

Nuclear power plants produce radioactive materials, including radioactive iodine. A nuclear power plant disaster could release radioactive materials into the environment. If this happens, radioactive iodine can get into your body. You could breathe contaminated air, eat contaminated food or have direct contact with something that is contaminated with radioactive iodine. Exposure can damage your thyroid, an important gland in your neck.

## **What actions should I take following a radiation release?**

In a radiological emergency, **evacuation is the best action you can take** to protect your health. But if you cannot leave the area, stay indoors to limit your exposure. Monitor TV or radio broadcasts for updates from emergency management and public health officials. The Emergency Alert System and the media (radio and TV) will tell you what to do to protect yourself and your family. They may advise you to evacuate, stay inside, and/or take potassium iodide pills (KI).

## **What is Potassium Iodide (KI)?**

Potassium iodide (KI) is an over-the-counter medicine that can protect one part of the body – the thyroid – if a person is exposed to radioactive iodine during a nuclear power plant emergency. You are being offered a supply of KI. In a nuclear power plant emergency, public health officials may advise you to take the KI pills if you are unable to leave the area.

## **How does KI work?**

KI fills the thyroid with stable iodine so that it cannot absorb radioactive iodine. Taking KI before or shortly after exposure to radioactive iodine protects the thyroid from damage by radioactive iodine.

## **Will KI protect me from all types of radiation exposure?**

No, KI will only protect your thyroid from radioactive iodine. The best way to reduce the risk of radiation exposure to your body is to evacuate the area and avoid eating contaminated food. **KI should be used only when evacuation is not possible.**

## **When should I take KI?**

**Do not take KI unless public health officials tell you to take it.** If a potentially harmful radioactive release occurs during a nuclear power plant emergency, listen to the Emergency Alert System on television and radio stations for information about protective measures and the use of KI. Public health officials may advise you to take KI. Or local or state emergency management officials may order you to evacuate the area to protect your health. **Evacuation is the most effective way to protect your health after a release of radiation.**









## **How much KI should I take?**

Take only one dose of KI every 24 hours until you are able to leave the contaminated area. Taking more than one dose will not increase your protection and it may increase the risk of side effects. Public health officials will tell you how long to take KI if it is needed.

The dose depends on a person's age. Infants and young children are at highest risk of harm from exposure to radioactive iodine because their thyroids absorb more iodine. The younger a child, the more vulnerable he or she is to thyroid cancer and other thyroid diseases following exposure to radioactive iodine. Similarly, fetuses are in danger, so pregnant and breastfeeding women need a higher dose of protection than other adults.

The table below shows the KI doses recommended by the U.S. Food and Drug Administration (FDA). To divide the tablets by one-half, one fourth or one-eighth, use a pill cutter or a sharp knife on a hard surface. For young children and infants, crush the entire tablet into a fine powder, divide the powder into four or eight equal piles, and mix the needed portion into applesauce, pudding or another favorite food or liquid.

## Recommended Doses of KI

Age Group	KI Dosage	Number of 130mg Tablets	Number of 65mg Tablets	Liquid (65 mg/ml)
<b><u>Adults and Adolescents*</u></b> (Over 150 lbs.)	130mg	<b>1 tablet</b> 	<b>2 tablets</b> 	2 ml
<b><u>Children 3-18 yrs</u></b> (Under 150 lbs.)**	65mg	<b>1/2 tablet</b> 	<b>1 tablet</b> 	1 ml
<b><u>Infants</u></b> (1 month – 3 yrs)**	32mg	<b>1/4 tablet</b>  Liquid form preferred	<b>1/2 tablet</b> 	.5 ml
<b><u>Infants</u></b> (Birth – 1 month)	16mg	<b>1/8 tablet</b>  Liquid form preferred	<b>1/4 tablet</b>  Liquid form preferred	.25 ml

\* Adolescents approaching adult size (150 pounds) should receive the adult dose (130mg).

\*\* KI tablets may be crushed to form a powder. Powdered KI or liquid KI may be mixed in milk, water, formula, or soft foods.

### Where should I store my KI pills?

KI should be stored in a dry place and kept at room temperature out of reach of children.

### Is it safe to take KI?

The FDA has determined that KI is safe for most people. Some people may have mild side effects such as nausea, upset stomach and skin rash. Side effects may also include salivary gland swelling, a metallic taste in the mouth, a burning mouth and throat, sore teeth and gums, or head cold symptoms. If side effects are severe or you experience fever, joint pain, swelling, or shortness of breath, seek medical attention immediately.

If you have multinodular goiter, Graves' disease, and autoimmune thyroiditis, do not take KI unless your doctor says it is safe. KI may affect the activity of the thyroid gland in people with these conditions.

If you take thyroid medications, are pregnant, or are breastfeeding, take only one dose of KI. As soon as possible, have your doctor check to make sure your thyroid is working normally. The same is true for newborns up to 1 month old.

### Who should not take KI?

If you are allergic to iodine, X-ray dye, or shellfish, such as shrimp, oysters, and crab, do NOT take KI. If you have dermatitis herpetiformis or hypocomplementemic vasculitis you are at an increased risk of iodine allergy. Do not take KI unless your doctor says it's safe. **WARNING:** Keep out of the reach of children. In case of an allergic reaction (difficulty breathing, speaking or swallowing; wheezing; shortness of breath or swelling of the mouth or throat), call 911 or get medical care right away. In case of overdose, get medical help or call a Poison Control Center right away at 1-800-222-1222.

Remember — KI must be taken within the first few hours of a radioactive exposure to be effective, and you may be unable to reach your physician quickly during a nuclear emergency. If you have one of the above conditions or are unsure if you can safely take KI, ask your physician BEFORE an emergency.

For additional information about KI and how you can protect yourself from harmful radiation, call your county public health department or the Nuclear Response and Emergency Environmental Surveillance Section at 1-800-476-9677. You can also find information at [www.scdhec.gov](http://www.scdhec.gov).