

Fact Sheet

Feuille de renseignements



Ministry of Community Safety
and Correctional Services

Ministère de la Sécurité communautaire
et des Services correctionnels

Questions & Answers

Potassium Iodide (KI) Pills

In the event of an accident at a nuclear generating station, emissions may include radioactive iodine. One way to protect yourself from radioactive iodine is to take stable (non radioactive) potassium iodide (KI). Here are some commonly asked questions about KI pills:

Q1 Can the KI pill be used to protect against all forms of radiation?

A1 No. Potassium iodide is only effective against exposure to radioactive iodine. Other protective actions, such as staying indoors or evacuation, will protect you from other radioactive materials (and will be effective against radioactive iodine, as well).

Q2 How do KI pills work?

A2 Iodine is produced in small amounts by our bodies and is consumed in many of our foods and medicines. The thyroid gland naturally accumulates and stores this iodine. In a nuclear emergency, radioactive iodine may be released from the station, and could enter our bodies (by inhalation or ingestion through contaminated milk or foodstuffs) where it would accumulate in our thyroid gland. KI pills fill up the thyroid with stable iodine. Because the stable iodine has already flooded the thyroid, the radioactive iodine will have no place to accumulate and so will be excreted in the urine.

Q3 When do I take a KI pill?

A3 Provincial authorities will instruct you through radio and TV bulletins when to take the pill if radioactive iodine is present in station emissions. KI pills are available to the general public at designated drugstores in Durham Region where they are offered free of charge to residents in the Contiguous Zone (three kilometre radius from nuclear stations). KI pills will also be available at the Reception Centre following an evacuation.

KI pills are also stockpiled in Durham Region schools and will be made available to school children, if required. Susceptible populations including, daycares, hospitals, homes for the aged and essential service establishments (police, fire & ambulance) also have stockpiles of pills for use in an emergency.

Q4 What potassium iodide (KI) products are currently available?

A4 Health Canada has approved two KI products for distribution in Canada – RadBlock and ThyroSafe. Radblock is provided free of charge to residents near the Pickering & Darlington nuclear generating stations.

Q5 How many pills should be taken and how often?

A5 Follow the Health Canada recommended dosage for RadBlock or Thyrosafe. The approved dosage by Health Canada is:

Birth through one-month	¼ pill
One month through three years	½ pill
3 – 12 years	1 pill
12 – 18 (less than 150 pounds)	1 pill
12 – 18 (more than 150 pounds)	2 pills
18 and older	2 pills

- *Larger doses than those prescribed above will increase the risk of side effects and are not recommended by the World Health Organization.*
- *12 to 18 year olds who are approaching 150 pounds and unsure of their weight should take 2 pills.*

People remaining in an area that is contaminated by radiation may be directed by provincial authorities to repeat dosages every 24 hours. However, repeat dosages for infants under one month, and for pregnant women is not recommended because of the potential for KI to suppress thyroid function in the fetus and neonate.

Q6 Does the KI pill have a shelf life? How should it be stored?

A6 The expiry date is printed on the label of the KI bottles. The bottle should be kept sealed at room temperature and away from light.

Q7 How do I give my child a fraction of the tablet?

A7 To administer fractional doses to children and infants, crush and dissolve a tablet in a measured quantity of water or juice, and then give an appropriate portion of the solution (equal to the prescribed fraction of the tablet) to the child. For example, for children 1 month to 3 years old, crush one tablet, dissolve it in an eight oz. glass of juice or water and give your child half of the KI solution.

Q8 Are there any side effects of KI?

A8 Side effects are unlikely because of the low dose and the short time the drug would be taken. Possible side effects from an allergic reaction to iodine are skin rash, fever, pain in your joints, swelling of face or body and shortness of breath. Side effects from prolonged use or a high dose are a metallic taste, burning mouth, sore gums, swelling of salivary glands, headaches, upset stomach, and diarrhea. If you experience any of these side effects, you should consult a physician.

Q9 How can I tell if I'm allergic to KI pills?

A9 If you previously had a reaction to iodine, or if you're on a salt free or low-iodine salt diet, it's possible you may have a reaction to iodine. Check with your family doctor to be sure.

Q10 How effective is the KI pill?

A10 The pill is most effective in providing a reduction in radiation dose if taken early, and just prior to an exposure to radioactive iodine, based on scientific research. Pills should be taken only under the direction of provincial authorities.

Q11 What drug stores in Durham Region provide KI pills?

A11 The following drug stores provide KI in Durham Region:

Bay Ridges Pharmacy
1235 Bayly Street
Pickering
905 839-1123

Guardian Main Drug Mart
1185 Glenanna Road
Pickering
905 831-8181

Liverpool Pharmacy
715 Krosno Blvd.
Pickering
905 839-4300

Axis Global Drug Mart Pharmacy
130 Waverly Road
Bowmanville
905 623-2333

Courtice Pharmacy
2727 Courtice Road
905 432-8888

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