



## Possible KI Health Effects

### Answers to Frequently Asked Questions

#### What health effects are associated with taking KI?

Potassium iodide (also called KI) is a drug that can be taken in the event of a radiological or nuclear event. KI prevents radioactive iodine from being absorbed by your thyroid gland, and protects this gland from injury. There can be health effects associated with taking KI.

Short-term use of KI at the recommended dose is safe. You should not take this drug for longer than you are told.

Possible side effects include: swelling of the salivary glands, nausea, vomiting, diarrhea, stomach ache, fever, headache, metallic taste, and allergic reactions.

Allergic reactions can include: skin rashes (hives); swelling of the face, lips, tongue, throat, hands or feet; fever with joint pain; trouble breathing, speaking, or swallowing; wheezing or shortness of breath.

Symptoms of an overactive thyroid gland may include an irregular heart beat and chest pain.

Usually, side effects occur when people take higher-than-recommended doses. Otherwise, side effects are unlikely because of the low dose and the short time the drug will be taken. Generally, the risk of thyroidal side effects is related to dosage and to the presence of an underlying thyroid disease (e.g., goiter, thyroiditis, Graves' disease). The possible side effects of KI are far outweighed by the benefits regarding prevention of thyroid cancer in susceptible individuals.

A rare but potentially serious side effect of administering KI to infants is transient hypothyroidism. Without immediate treatment, transient hypothyroidism in infants may increase the risk of developmental disability. It is important to note the FDA has concluded the benefit of administering KI to infants outweighs the risk, but they should be medically monitored for transient hypothyroidism.

#### Who should not take KI or have restricted use?

The high concentration of iodine in KI can be harmful to some people. People should not take KI if they:

- Know they are allergic to iodine.
- Have certain skin disorders (such as dermatitis herpetiformis or urticaria vasculitis).
- Have ever had nodular thyroid disease with heart disease.
- Individuals with Graves' disease, and autoimmune thyroiditis should be treated with caution -- especially if dosing extends beyond a few days.
- Repeat dosing is not recommended for pregnant females and newborn children.

**Note:** Of the 7 million adults who took stable iodine in Poland following Chernobyl, only two reported severe adverse reactions. Both individuals had a known allergy to iodine. Based on this data, the FDA concluded even if the risks associated with excess stable iodine are greater to adults than to children, the risk of serious adverse reactions overall is exceedingly small.

#### What do I do if I think I am having side effects from taking KI?

If you have any concerns about KI, using KI, or its possible health effects, contact your physician.

Stop taking KI and call a doctor if you have one or more of the following symptoms:

- Swelling of the face, hands, or feet
- Fever and joint pain
- Skin rash

Stop taking KI and get medical help right away if you have one or more of the following symptoms:

- Trouble breathing, speaking, or swallowing
- Shortness of breath or wheezing
- Swelling of the lips, tongue, or throat
- Irregular heart beat or chest pain

## References

Centers for Disease Control and Prevention.  
Potassium Iodide (KI)  
<http://emergency.cdc.gov/radiation/ki.asp>

Oak Ridge Institute for Science and Education.  
How Does KI Work?  
[https://www.youtube.com/watch?feature=player\\_embedded&v=AEz1gJoKI9Y](https://www.youtube.com/watch?feature=player_embedded&v=AEz1gJoKI9Y)

US Food and Drug Administration. Guidance:  
Potassium Iodide as a Thyroid Blocking Agent  
in Radiation Emergencies.  
<https://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/ucm080542.pdf>

### **Where can I get more information?**

Ohio Department of Health  
Bureau of Environmental Health and Radiation  
Protection  
Radiological Health and Safety Section  
246 North High Street  
Columbus, OH 43215

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