

THE USE OF IODINE TABLETS (65 MG POTASSIUM IODIDE PER TABLET) IN THE EVENT OF NUCLEAR OR RADIOLOGICAL EMERGENCIES

INFORMATION LEAFLET FOR THE PUBLIC

1. EMERGENCIES DURING WHICH RADIOACTIVE IODINE IS RELEASED

In a serious nuclear or radiological emergency, radioactive iodine may be released into the atmosphere following, for instance, an incident at a nuclear power plant, an incident during the production, transport and use of radioactive materials or some terrorist attacks.

When radioactive iodine is absorbed in the body, it is stored to a large extent in the thyroid gland. As a result, the thyroid gland can be exposed to high amounts of radiation which can cause thyroid cancer, particularly in children.

Taking iodine tablets blocks the absorption of radioactive iodine in the thyroid gland thus protecting it.

2. HOW IS RADIOACTIVE IODINE ABSORBED IN THE BODY?

Radioactive iodine is absorbed in the body in three ways:

1. By breathing in air containing radioactive iodine. The risk of breathing in radioactive iodine can partly be averted by staying indoors and keeping all windows and doors closed.
2. Consumption of food or drink containing radioactive iodine. The government takes measures to prevent the consumption of radioactive contaminated food by, for instance, imposing a temporary ban on the consumption of milk, vegetables, ...
3. Absorption through the skin. Absorption through intact skin is mostly negligible.

3. HOW DO IODINE TABLETS WORK?

A typical characteristic of iodine (non-radioactive and radioactive) is that it is stored in the thyroid gland after absorption in the body.

We need natural (non-radioactive) iodine for the proper functioning of our thyroid gland. This small amount (0.1 to 0.2 mg/day) is obtained from our food.

The radioactive iodine to which you are exposed will be absorbed in the body where it will then also be stored in the thyroid gland if no protective measures have been taken. Consequently, you will be at a higher risk of developing thyroid cancer.

The iodine tablets in this pack contain a large amount of natural iodine (as potassium iodide 65 mg/tablet) which, after ingestion, saturate your thyroid gland with iodine (figure 1. a)). As a result, the radioactive iodine, to which you are potentially exposed, can no longer be absorbed and stored in your thyroid gland, which means it is protected (figure 1. b)).

The excess of iodine (non-radioactive and radioactive) will be excreted quickly via urine.



Figure 1. a) Saturation of the thyroid gland with natural iodine from iodine tablets
 b) Radioactive iodine cannot be absorbed and stored in the thyroid gland which means it is protected

BEWARE: Iodine tablets only protect the thyroid gland against radioactive iodine and not against other radioactive substances or against external radiation. For this reason, the ingestion of iodine tablets is usually combined with other protective measures such as taking shelter (staying indoors with windows and doors closed) and avoiding the consumption of radioactive contaminated food and drink.

4. WHEN SHOULD YOU TAKE IODINE TABLETS PREVENTIVELY?

Taking iodine tablets is a precautionary measure which, even after a nuclear accident has occurred, should not always be adopted. If the tablets have to be taken, the government will inform you via announcements made on the radio, TV, websites, via SMS text messages or loudspeakers.

Taking the iodine tablets shortly before or virtually simultaneously to being exposed to radioactive iodine offers the most effective protection of the thyroid gland. If you take the iodine tablets way too early or a few hours after exposure, you will be less protected. Taking the tablets more than 24 hours after exposure will no longer offer any protection.

DO NOT TAKE THE TABLETS ON YOUR OWN INITIATIVE BUT ONLY WHEN THE GOVERNMENT HAS ADVISED YOU TO DO SO.

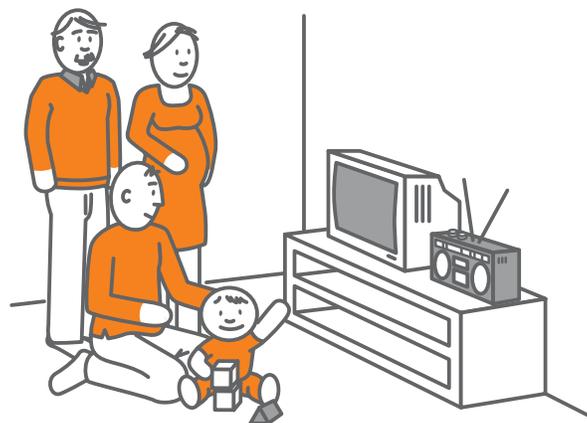


Figure 2. Tune into the TV or radio and wait for instructions from the government

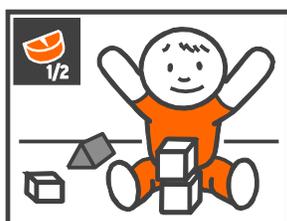
5. HOW MANY IODINE TABLETS SHOULD YOU TAKE?

The amounts stated below (figure 3) apply to iodine tablets containing 65 mg potassium iodide, like the tablets in this pack.

DO NOT EXCEED THE RECOMMENDED DOSE!



UP TO 1 MONTH:
ONE SINGLE DOSE OF A QUARTER OF A TABLET



FROM 1 MONTH TO 3 YEARS:
ONE SINGLE DOSE OF HALF A TABLET

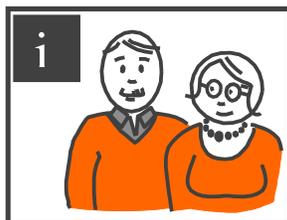


FROM 3 TO 12 YEARS:
ONE SINGLE DOSE OF ONE TABLET



FROM 13 TO 40 YEARS:
ONE SINGLE DOSE OF 2 TABLETS

PREGNANT AND BREASTFEEDING WOMEN (REGARDLESS OF AGE):
ONE SINGLE DOSE OF 2 TABLETS



FROM 40 YEARS:
SEEK MEDICAL ADVICE FROM YOUR GP OR SPECIALIST BEFORE
TAKING THE TABLETS

Figure 3. Recommended amount of iodine tablets per age group

If you are taking medication for thyroid problems, take the correct amount of iodine tablets (see figure 3) whilst continuing your regular treatment for your thyroid disorder. Make sure to consult your attending doctor as soon as the emergency has passed.

As a rule, taking one single dose of iodine tablets in the amount indicated in figure 3 is enough. In exceptional circumstances (e.g. extended period of discharge), the government may advise you to take a second, in all probability lower, dose. The number of tablets distributed beforehand has been calculated to cover this eventuality.

Newborn babies should only ever take one single dose of tablets.

It is highly exceptional that pregnant and breastfeeding women would have to take a second dose of tablets.

6. HOW SHOULD YOU TAKE IODINE TABLETS?

The best way to take the iodine tablets is to first dissolve them in a small amount of water (figure 4. a) and then add the mixture to a larger amount of liquid (figure 4. b)). We advise against taking the tablets with an alcoholic drink. If there is no liquid available, you can also just take the tablets without.

For babies and children aged up to 3 years, you need to always finely crush the quarter or half of the tablet first. This powder can then be dissolved in a small amount of liquid and then added to a larger amount of liquid, for instance, (extracted) milk. If there is no liquid available, you can also mix the powder with the child's food. Children in this age group must not swallow the quarter or half of the tablet in solid form.

The prepared solution must not be stored and must be drunk immediately.

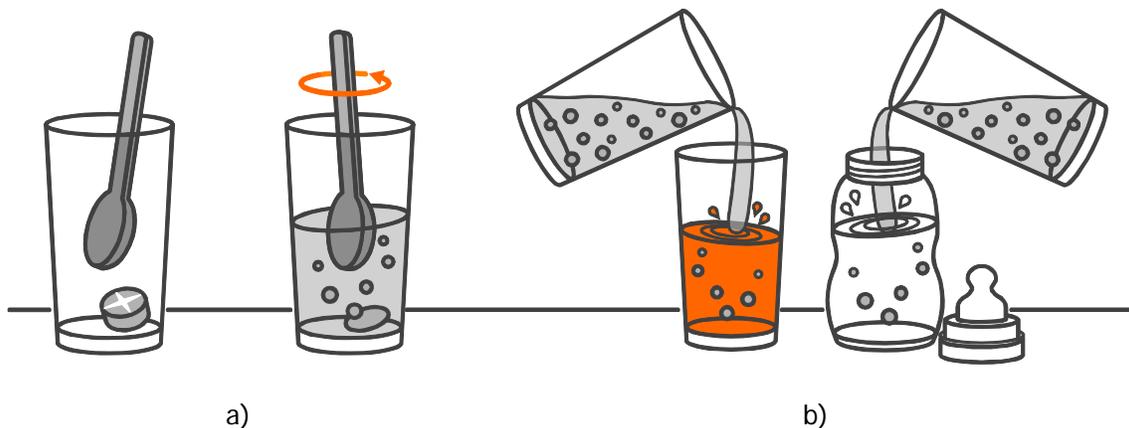


Figure 4. a) First dissolve the iodine tablet in a small amount of water b) Add this solution to a larger amount of liquid such as water, juice or (extracted) milk

7. TAKING IODINE TABLETS DURING PREGNANCY AND BREASTFEEDING

If you are pregnant, you must, regardless of your age, take the recommended amount of tablets because by doing so you will also protect your unborn child. However, you must inform your doctor about this so that special attention can be paid to the results of the thyroid test of the newborn baby (routine test carried out on all newborn babies).

The amount of iodine present in multivitamin preparations is NOT enough to saturate the thyroid gland and does not form an alternative to taking the iodine tablets in this pack.

If you are breastfeeding, you must, regardless of your age, take the recommended amount of iodine tablets. Afterwards, you can simply carry on breastfeeding. In addition, the baby itself also has to take its iodine dose as indicated in figure 3, for instance, dissolved in (extracted) milk.

Pregnant and breastfeeding women should preferably take just one single dose of tablets. Only in very exceptional circumstances will a second, in all probability lower, dose be recommended by the government.

8. IODINE TABLETS FOR PEOPLE AGED OVER 40

The need for people over 40 to take iodine tablets is disputed. Saturating the thyroid gland with iodine is often a less appropriate approach when it comes to this age group for two reasons:

- The risk of thyroid cancer as a result of absorbing radioactive iodine decreases with age.
- In people over 40, the thyroid function is more often irregular, particularly in regions poor in iodine such as Belgium. Therefore, there is an increased risk of undesired effects when taking iodine tablets.

When the thyroid function is severely impaired, something which occurs more frequently with age, the disadvantages of taking the tablets (undesired effects) can outweigh the benefits (prevention of thyroid cancer).

Make sure to seek medical advice from your doctor or specialist about the pros and cons of taking the tablets before taking them.

9. DO NOT TAKE THESE TABLETS IF YOU SUFFER FROM ANY OF THE FOLLOWING CONDITIONS

Iodine tablets must not be taken by anyone who suffers from the following conditions:

- Known hypersensitivity to iodine (a very rare disorder, not to be confused with the more common hypersensitivity to contrast agents used in radiological examinations)
- Dermatitis herpetiformis or Dühring's disease (chronic skin condition)
- Hypocomplementemic vasculitis (inflammation of the vascular walls caused by allergy)
- Iododerma tuberosum (extremely rare skin condition characterised by the sudden appearance, after taking iodine, of spots which strongly resemble those caused by acne, usually in the face and on the extremities)
- Myotonia congenita (extremely rare congenital defect involving muscle stiffness)

If you think you may come under any of these categories, you should seek medical advice from your doctor before taking these tablets.

10. UNDESIRABLE SIDE EFFECTS

In rare cases, iodine tablets may cause changes in the thyroid function. However, this does not outweigh the increased risk of thyroid cancer as a result of not taking the tablets.

Those susceptible include:

- Babies whose mothers took iodine tables when pregnant
- Newborn babies and infants who were administered iodine tablets

- People who suffer or have suffered from a thyroid disorder.

If you or your child come under any of these categories, you must consult your doctor as soon as possible after having taken the iodine tablets.

Passing stomach complaints may occur, particularly when the tablets are taken on an empty stomach or with an alcoholic drink. If these symptoms persist for a longer period of time, you must consult your doctor.

If you or your child suffer from any complaints in the period of one week up to three months after having taken the iodine tablets such as sweating, heart palpitations, weight loss, tiredness or diarrhoea, you must consult your doctor. This advice applies particularly for anyone over 40.

In exceptional circumstances, taking iodine tablets may cause hypersensitivity reactions such as redness of the skin (rash), fluid build-up (oedema), pain in the neck, watering eyes, cold symptoms, swelling of the salivary glands and fever. The symptoms will pass without any treatment when you stop taking the tablets, but if in doubt, consult your doctor. The small risk of hypersensitivity reactions is no argument for not taking the iodine tablets.

11. WHERE AND WHEN CAN YOU OBTAIN IODINE TABLETS?

In an area of 20 km around the nuclear site in Doel, Tihange, Mol-Dessel, Borssele (the Netherlands) and Chooz (France) and 10 km around the site in Fleurus, iodine tablets are distributed as a precaution to families, schools, companies, ... You can collect the tablets at your local pharmacy.

In addition, the federal government also has a large supply of iodine tablets for distribution in case of emergencies.

12. STORAGE

Store these tablets at room temperature (below 25°C), in a dry place, protected from light and keep out of reach of children.

The packaging bears only the manufacture date of the tablets. When stored in their original packaging and as directed above, iodine tablets have a shelf-life of minimum 10 years. A light yellowish brown discoloration of the tablets may occur after a certain amount of time but this does not affect the effectiveness of the tablets and presents no risk.

The government will check the effectiveness of the tablets at set intervals. As soon as this becomes necessary, any previously distributed tablets will be replaced. Do not throw away the old tablets but take them to your pharmacist when you are asked to collect your new supply.

13. URGENT APPEAL

IN THE INTEREST OF YOUR OWN SAFETY YOU MUST ALWAYS FOLLOW THE GOVERNMENT'S INSTRUCTIONS. THE GOVERNMENT WILL ASSESS THE SITUATION AND CAN RECOMMEND EXTRA PRECAUTIONARY MEASURES IF NEED BE.