Drinking Water and Health

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تلوث المياه

1- تلوث فيزيائي:
- اللون
- الرائحة
- المذاق
- الشوائب

2- تلوث كيميائي:
- العناصر الثقيلة
(رصاص، زرنيخ)

3- تلوث بيولوجي:
- الميكروبات المسببة للمرض

طرق انتقال الامراض بواسطة المياه

1- شرب الماء الملوث
2- الاستحمام بالمياه الملوثة
3- استعمال المياه الملوثة لتحضير المأكولات أو غسل أواني الشرب والطعام
4- ري المزروعات التي تؤكل طازجة بالمياه الملوثة

خصائص الأوبئة المنقولة بواسطة المياه

1- اصابة عدد كبير من السكان الذين يستعملون نفس المصدر دون تفرقة بين الكبار والصغار.

2- يتوقف انتشار الوباء عند:

- التوقف عن استعمال مصدر المياه الملوث.
- معالجة تلوث مصدر المياه.
- استعمال مصدر مياه آخر غير ملوث.

الأمراض المنقولة بواسطة الماء

1- أمراض بكتيرية:

- التيفوئيد والبار اتيفوئيد
- الدوسنطاريا الباسيلية
- الكوليرا
- النزلات المعوية
- شلل الأطفال

2- أمراض فيروسية:

- التهاب الكبد الوبائي

الأمراض المنقولة بواسطة الماء

1- أمراض طفيلية:

- البلهارسيا
- الدوسنطاريا الاميبية
- أمراض الديدان

2- أمراض الاسنان:

- تسوس الاسنان بسبب نقص الفلورايد
- تشوة العظام بسبب زيادة الفلورايد

3- التسمم:

- التسمم بالرصاص
- التسمم بالمبيدات

- What contaminants may be found in drinking water?
- Where does drinking water come from?
- How is drinking water treated?
- What are the health effects of contaminants in drinking water?
- Who is responsible for drinking water quality?

- What is a violation of a drinking water standard?
- How can I help protect drinking water?
- Drinking Water and Health: What you need to know ?
- The important of Water and Human Health?
- When and who needs to drink more water?

What contaminants may be found in drinking water?

- There is no such thing as naturally pure water. In nature, all water contains some impurities. As water flows in streams, sits in lakes, and filters through layers of soil and rock in the ground, it dissolves or absorbs the substances that it touches. Some of these substances are harmless.
- Some contaminants come from erosion of natural rock formations. Other contaminants are substances discharged from factories, applied to farmlands, or used by consumers in their homes and yards.

Where does drinking water come from?

- A clean, constant supply of drinking water is essential to every community.
- wells tap into aquifers, the natural reservoirs under the earth's surface
- As with surface water, it is important to remember that activities many miles away from you may affect the quality of ground water.
- Surface Water
- Groundwater
- Rain Water collection
- Bottled Water

How is drinking water treated?

- Ground water is naturally filtered as it passes through layers of the earth into underground reservoirs known as aquifers.
- Water that suppliers pump from wells generally contains less organic material than surface water and may not need to go through any or all of the treatments. The quality of the water will depend on local conditions.

- The most common drinking water treatment, considered by many to be one of the most important scientific advances, is disinfection. Most water suppliers add chlorine or another disinfectant to kill bacteria and other germs.
- Water suppliers use other treatments as needed, according to the quality of their source water. For example, systems whose water is contaminated with organic chemicals can treat their water with activated carbon, which adsorbs or attracts the chemicals dissolved in the water

What are the health effects of contaminants in drinking water?

- EPA has set standards for more than 80 contaminants that may occur in drinking water and pose a risk to human health. EPA sets these standards to protect the health of everybody, including vulnerable groups like children. The contaminants fall into two groups according to the health effects that they cause.
- In drinking water, microbes are the contaminants with the greatest chance of reaching levels high enough to cause acute health effects. Most people's bodies can fight off these microbial contaminants the way they fight off germs, and these acute contaminants typically don't have permanent effects.

- Chronic effects occur after people consume a contaminant at levels over the standard. The drinking water contaminants that can have chronic effects are chemicals, radionuclides and minerals.
- Examples of the chronic effects of drinking water contaminants are cancer, liver or kidney problems, or reproductive difficulties

Who is responsible for drinking water quality?

- Palestinian Water Authority
- Environmental Quality Authority
- Ministry of Health
- Municipalities

- While PWA, EQA, MoH set and enforce standards, local governments and water department at the municipalities and water suppliers have direct responsibility for the quality of the water that flows to your tap.

What is a violation of a drinking water standard?

- Drinking water suppliers are required to monitor and test their water many times, for many things, before sending it to consumers. These tests determine whether and how the water needs to be treated, as well as the effectiveness of the treatment process.
- Water law
- Water Regulations

How can I help protect drinking water?

- There are lots of ways that individuals can get involved.
- Some people will help clean up the source of their community's water.
- Other people might get involved in wellhead protection activities to prevent the contamination of the ground water source.

- Other people will want to attend public meetings to ensure that the community's need for safe drinking water is considered
- All consumers can do their part to conserve water.

The important of Water and Human Health

- Water makes up more than two thirds of the weight of the human body, and without it, humans would die in a few days. The human brain is made up of 95% water, blood is 82% and lungs 90%
  - Water serves as a lubricant
  - Water forms the fluids that surround the joints.
  - Water regulates the body temperature, as the cooling and heating is distributed through perspiration.
  - Water helps to alleviate constipation by moving food through the intestinal tract and thereby eliminating waste- the best detox agent.
  - Regulates metabolism

- water also plays a key role in the prevention of disease. Drinking eight glasses of water daily can decrease the risk of colon cancer by 45%, bladder cancer by 50%.

When and Who Needs to Drink More Water?

- It was stated that the average person needs about 8 glasses of water per day. But that is just an average. Some people need more, and some people need less
- There are also certain times when people may need more water than usual, whether it is a health condition, or an environmental concern. Under these circumstances, more water should be drank:

1. When on a high protein diet
2. When on a high fiber diet
3. Having an illness that causes vomiting or diarrhea
4. Are being more physically active
5. Are exposed to warm or hot conditions