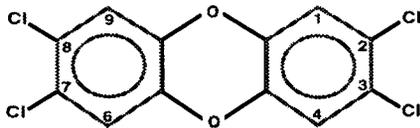


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FACTS ABOUT DIOXIN" NCBC GULFPORT MS
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What is dioxin?



→ There are 75 forms of dioxin but only 15 forms are believed to be harmful.

Where is dioxin found?

→ Dioxin is found throughout the world in the air, soil, water sediment, fish, shellfish, meat, and dairy products.

Where does dioxin come from?

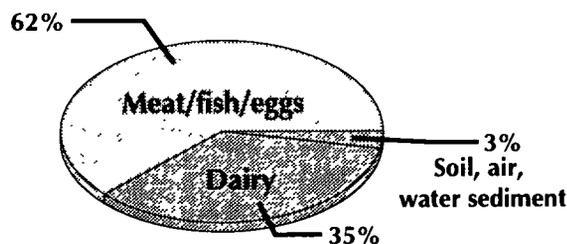
Dioxin is not intentionally made, instead it is a result of making the following products:

- ✓ Paper mills (amount has been lowered by 90% in the last 10 years)
- ✓ Production of chemicals to kill plants and germs (not allowed now)
- ✓ Incinerators
- ✓ Forest fires
- ✓ Recycling automobiles

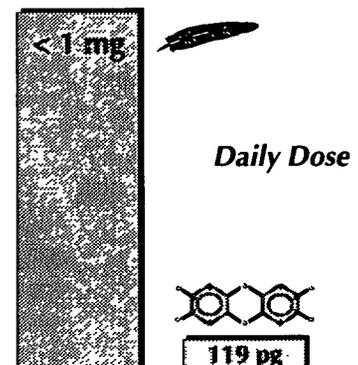
How do I come into contact with dioxin?

You come into contact with very small amounts of dioxin everyday.

Source of Daily Contact



Estimated Dioxin Dose for North Americans



Based on U.S. Environmental Protection Agency 1994 Report

Review of Effects of Dioxin on Animals and Humans

Effect on Organ System	Laboratory Animals (High Dose/Controlled Study)	Humans (High Dose/Accidental or Uncontrolled Study)
Cancer		
Skin Chloracne		
Other Skin Effects		
Liver Size		
Liver Function		 <i>with drinking</i>
Other Liver Problems		
Triglycerides/Cholesterol		
Thyroid Changes		
Diabetes		
Immune Changes		
Brain Changes		 <i>adults - short term</i>  <i>adults - long term</i>  <i>children</i>
Heart and Circulatory Damage		
Lung Irritation		 <i>short term</i>
Lung Damage		
Kidney Damage		
Reproductive Hormones		
Birth Defects		
Chromosome Damage		

 Positively Observed
  Not Observed
  Data not conclusive or not available

Based on the Draft 1994 U.S. Environmental Protection Agency Health Effects Assessment Document for 2,3,7,8-TCDD and Related Compounds

Facts About Dioxin

Why are the Animal and Human Dioxin Results Different?

Laboratory Animal Contact Studies

Advantages of using animals

- ✓ The study is well controlled.
- ✓ No confusion by smoking, drinking, or other factors.
- ✓ High dose or lifetime studies.

Disadvantages of using animals

- ✓ Animals and humans are not the same.
- ✓ High dose versus human daily dose.
- ✓ Pure dioxin rather than all forms of dioxin contact.
- ✓ Animals are unable to give verbal answers.

Human Dioxin Contact Studies

Advantages of using humans

- ✓ Gives better picture of the effects of dioxin on humans.
- ✓ Exposure to all forms of dioxin.
- ✓ Humans are able to give verbal answers.

Disadvantages of using humans

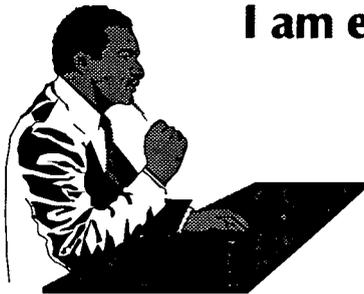
- ✓ Extremely high doses in accidental cases.
- ✓ Difficult to determine actual contact dose.
- ✓ Smoking and Drinking can confuse results.
- ✓ Difficult to find a control group.

Difficulties in Evaluating Data

- ✓ Actual environmental doses are much lower than in the animal or human studies.
- ✓ Different animal studies have different results.
- ✓ Harmful dioxin doses are different between animals and humans.



What will happen if I am exposed to dioxin?

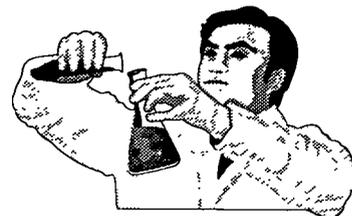


- The answer is still being argued and depends on which studies you believe are correct, the animal research or the human research.

- Remember -

There are two groups of scientists:

- ✓ Those who accept the animal findings.
- ✓ Those who accept the human findings.



Both findings are the result of valid research.

Where do we go from here?

To determine if the CBC Gulfport area has the potential to expose the public to higher than average dioxin levels, an exposure assessment of the area will begin soon. This study will:

- involve cooperation between the Seabee Center, the U.S. Environmental Protection Agency and the Mississippi Department of Environmental Quality;
- will better define the potential for exposure in the area;
- help to identify areas where people may be coming in contact with dioxin; and
- provide a clearer idea of what is happening in the area.

