
Aniline

Patient Information Sheet

This handout provides information and follow-up instructions for persons who have been exposed to aniline.

What is aniline?

Aniline is a manufactured chemical used to make a variety of products including polyurethane foam, photographic developers, rubber, dyes, and pesticides. At room temperature, it is a clear to slightly yellow, oily liquid that may turn brown if left in contact with air. It has a weak fishy odor.

What immediate health effects can be caused by exposure to aniline?

Aniline can cause effects when it is breathed or swallowed. It can also pass rapidly through the skin. Aniline causes changes in hemoglobin, which carries oxygen in the blood; hence, the blood turns brown and tissues are unable to get enough oxygen (a condition known as methemoglobinemia). Headaches, weakness, drowsiness, and shortness of breath can occur. The skin, lips, and nailbeds can turn blue or slate gray. Aniline can cause the membrane of the red blood cells to burst (hemolysis), which also will prevent oxygen from reaching tissues. Generally, the more serious the exposure, the more severe the symptoms.

Can aniline poisoning be treated?

A solution of methylene blue may be given through a vein to patients who have been seriously exposed to aniline. Most patients recover within 24 hours, but they may need to be hospitalized for several days. The urine of a patient who has received methylene blue treatment may temporarily become blue to blue-green.

Are any future health effects likely to occur?

A single small exposure from which a person recovers quickly is not likely to cause delayed or long-term effects. After a serious exposure or repeated exposures to aniline, anemia can occur. There is no evidence that aniline causes cancer. Some workers exposed to aniline over many years developed bladder cancer, but this was probably due to simultaneous exposure to other chemicals. High incidences of gynecological disorders and excess frequency of spontaneous abortions have been reported for women chemically exposed to aniline.

What tests can be done if a person has been exposed to aniline?

Specific blood tests for the presence of methemoglobin may be useful. If a severe exposure has occurred, blood and urine analyses, and other tests may show whether damage has been done to the liver, heart, and brain. Testing is not needed in every case.

Where can more information about aniline be found?

More information about aniline can be obtained from your regional poison control center; your state, county, or local health department; the Agency for Toxic Substances and Disease Registry (ATSDR); your doctor or a clinic in your area that specializes in occupational and environmental health. If the exposure happened at work, you may wish to discuss it with your employer, the Occupational Safety and Health Administration (OSHA), or the National Institute for Occupational Safety and Health (NIOSH). Ask the person who gave you this form for help in locating these telephone numbers.

Follow-up Instructions

Keep this page and take it with you to your next appointment. Follow *only* the instructions checked below.

Call your doctor or the Emergency Department if you develop any unusual signs or symptoms within the next 24 hours, especially:

- difficulty breathing, shortness of breath, or chest pain
- weakness, nausea, or vomiting
- blood in the urine (brown- or bronze-colored urine)
- blue, brown, or gray color of the skin, lips, or nailbeds

No follow-up appointment is necessary unless you develop any of the symptoms listed above.

Call for an appointment with Dr. _____ in the practice of _____.

When you call for your appointment, please say that you were treated in the Emergency Department at _____ Hospital by _____ and were advised to be seen again in _____ days.

Return to the Emergency Department/ _____ Clinic on (date) _____ at _____ AM/PM for a follow-up examination.

Do not perform vigorous physical activities for 1 to 2 days.

You may resume everyday activities including driving and operating machinery.

Do not return to work for _____ days.

You may return to work on a limited basis. See instructions below.

Avoid exposure to cigarette smoke for 72 hours; smoke may worsen the condition of your lungs.

Avoid drinking alcoholic beverages for at least 24 hours; alcohol may worsen injury to your stomach or have other effects.

Avoid taking the following medications: _____

You may continue taking the following medication(s) that your doctor(s) prescribed for you: _____

Other instructions: _____

• Provide the Emergency Department with the name and the number of your primary care physician so that the ED can send him or her a record of your emergency department visit.

• You or your physician can get more information on the chemical by contacting: _____ or _____, or by checking out the following Internet Web sites: _____;

Signature of patient _____ Date _____

Signature of physician _____ Date _____