

LEAD AND YOU

A statement to workers using lead and lead compounds

Recently there has been a lot of public concern over lead in the environment and its possible effect on people's health, particularly that of young children. As a worker in an industry producing or using lead or lead compounds, you have no doubt felt anxious about your own health.

If your job requires periodical medical examination by law, you will have had tests, usually every three months, to find out if you have any anaemia (a reduction of the red colouring material of the blood). This is an early sign of the harmful effect of lead.

In recent years, laboratory tests have been increasingly used to detect the very earliest symptoms of lead exposure when the worker still feels well and indeed is well. Interpreting the results of these tests is usually a matter for your works doctor or family doctor, and his advice may of course vary from patient to patient.

This note aims to explain in simple terms the effects of exposure to lead and how, by means of these tests, your doctor can ensure, as far as possible, that you do not suffer harm because of your job.

The first thing to be said is that everybody has a certain amount of lead in his blood. For people who do not work with lead, the level is unlikely to exceed 40 micrograms for 100 millilitres of blood - an extremely small amount. People who work with lead usually have a higher level of lead in the blood, but provided that it does not exceed 80 or so, illness in adults is almost unknown. If it exceeds 80, then your doctor is likely to arrange for you to have other tests to help him judge whether it is safe for you to continue to work with lead.

If the level of lead in your blood is high, your doctor is likely to ask for a specimen of your urine in order to carry out further tests for the effects of lead in the body. It is quite likely that he will also arrange for you to have another blood test at the same time.

What happens then will depend very much on what is found. If, for example, the level of lead in the blood is somewhere between 80 and 120 and your urine is normal, the doctor may decide to let you continue with your job. But he may wish to repeat the test more frequently, perhaps every month to ensure that any further change in your condition will be detected early. If the urine test shows a high concentration or an increase over a previous level, he may decide that it is in your best interests to stop working with lead until the level returns to a more acceptable value.

If your blood lead level is unusually high, say above 120 and the urine test also unsatisfactory, your doctor may advise your immediate transfer to other work. But even if the lead level exceeds 120, you need not be suffering from lead poisoning in

the everyday meaning of the term. Your general state of health need not be different from what it would have been if you had not been working with lead.

If your doctor finds from the blood test that you are mildly anaemic, he may decide to have a full hospital investigation. This is because anaemia can, of course, be caused by something other than lead.

If the investigations show lead to be the cause, your doctor may report it to the Chief Inspector of Factories as a case of lead poisoning even though you may feel quite well.

This simple account of the effects of lead exposure shows two things:

1. Lead poisoning is not something which suddenly affects the lead worker.
2. There is nothing particularly alarming about a level of lead in the blood of 80 or more and it certainly does not necessarily mean that you have lead poisoning. All that a level of lead in the blood shows by itself is the conditions to which you have been exposed. But the higher it is or the longer it lasts, the more likely are other changes which will let your doctor know that something has to be done to protect you personally.

Obviously, an extremely high level of lead in the blood, say 200 or more, may have to be regarded, even if all other tests are negative, as a need to take you away from lead temporarily.

The responsibility for providing healthy working conditions lies with your employer and over the industry as a whole great improvements have been made and are still being made to improve the environmental conditions.

It is your duty however to make full and proper use of any measures such as protective clothing, showers and mess room accommodation which your employer may have provided in the interests of your health.

The tests described are a great improvement on those usually undertaken on lead workers and consequently they may cause more people to be removed temporarily from working with lead than was usual in the past. But the fact that it is now possible to do this at such an early stage is a big step forward in protecting the lead worker.

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