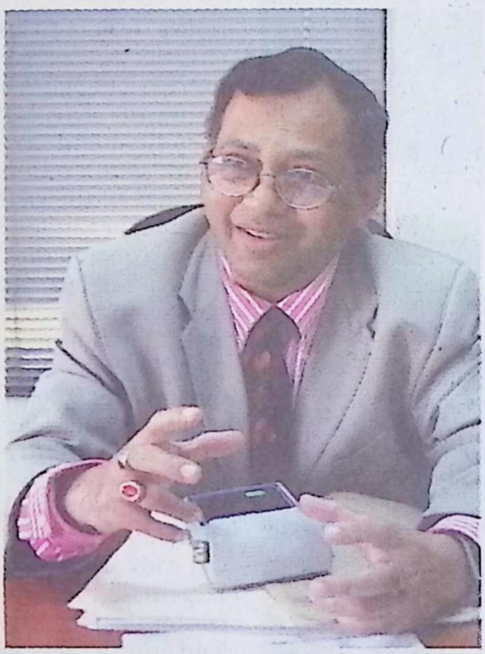
Because of the limited number of samples Dr Amal Mitra took this time, he could only test the blood of 350 children using an 'anodic stripping voltammetry' instrument which provides a prompt, cost-effective technique to monitor lead exposures. Mitra plans to come back in a few months' time with more resources to test blood lead levels in children in more parts of the country. "First we need to identify how big the problem is," says Mitra, "and I also need to measure the lead levels in adults in the families of the children I tested. I took samples from children only because they are more at risk as a result of the high levels of lead in their blood than adults. Children are more vulnerable to this problem, especially those under six."



Dr Amal K Mitra plans to study the blood lead levels in children more extensively.

Lead can get stuck inside the cartilage and the heart and brain. "When we're adults we don't need to grow anymore so the damage is less," continues Mitra, "we really need to find the sources of the problem. In the US all the toys that come from China have to be tested for lead before they reach the consumers."

Mitra is also worried about his findings in Dinajpur which is not a predominantly industrial area like Tongi. There the insecticides and pesticides (organophosphorus compounds as a whole) that are used have lead in them. "This could be a possible source of lead poisoning in this part of the area," says Mitra, "it does not have to be the same mode of transmission in the villages as in the towns. But it is definitely a big problem in this country."

Mitra says that although those who work in the industries are obviously at risk his research aims to find out who else besides those working inside the industries are at risk. "We need to find out how exposed the general masses are," he says, "even if 20 percent of the general masses are exposed to lead, it's a big problem."

Mitra recommends that it should be made mandatory to test the blood of every school-going child. "We don't want to increase the chances of mental retardation in future generations."

If the blood test is done on a large scale the cost per test falls dramatically. Using the instrument Mitra brought from the US it took him $10 to do each test for the 350 children. "But it can be done in a different method," he says, "and that will cost less." Because of the nature of his study it was more convenient for Mitra to use this instrument as it is handheld and gives the reading very quickly. This instrument is used all over the US to test for lead poisoning in all school-going children.

Eight-year-old Sanjida Akhter Sadia and her nine-year-old cousin Farzana Akhter Nadia were both tested by Dr Amal Mitra. Although neither of them have any signs or symptoms of lead poisoning they were found with a high level of it in their body. Neither of their parents has followed through with the treatment. The parents don't think it's a big problem and Sadia's mother complains that it is difficult enough for her family to make ends meet, and it would be an extra burden for them to buy medicine.

Ferdousi Akhter Maya is five years old and is in the playgroup class of Emersion School. She and her 12-year-old brother Mohammad Rubel were both found to have high levels of lead in their bodies. They live in a tin-shed house near the school with their mother Roushan Akhter and an elder sister. Their father Mohammad Haji Ruhul Amin drives a lorry in Saudi Arabia. Besides occasional headaches and stomachaches, Maya does not have any health problems. But Rubel hates studying and does not eat regularly. His mother is worried about Rubel and says that she has given up all hope on her son as he does not even have the patience to sit down and do his homework.

The first treatment of lead poisoning should include an effort to decrease a child's exposure to lead. In case of the children of Emersion school, it needs to be first determined what is causing this level of lead in their blood. A diet high in calcium and iron is necessary as deficiencies in these minerals can increase the body's absorption of lead which explains why malnourished children are more prone to have high levels of lead in their blood. Lead is a completely useless thing for our body and should be removed as soon as it is detected. Elevated blood lead levels can be treated with chelation therapy. These medications are chelating agents, which decrease blood lead levels by binding to them, so that they can be excreted in the urine. The treatment is comparatively inexpensive but unfortunately, although the parents of all these children were told about the dangers of lead poisoning and prescribed with medication and advice for follow-up none of them have even bothered to buy the medicine.

But of course the main emphasis should be on preventing it from entering the bodies of the children in the