## Are Plastic Water Bottles Safe For Elementary Students?

-Taylor Lee

Many schools across the world allow students to drink out of plastic water bottles and bring plastic water bottles to school, but little do they know that plastic bottles can cause serious damage to the body, especially children's bodies.

Researchers have found that the amount of microplastics floating in bottled drinking water is far greater than what they thought at first. About 90% of those plastics were small enough to be considered nanoplastics, which are just really tiny plastics that can be absorbed into human cells and tissue, along with the blood-brain barrier. There is a type of plastic found in single-use water bottles called Polyethylene Terephthalate (PET). Then there's the microplastics that range from micrometers to 5 millimeters in size. These microplastics have been found in tap and bottled water for years and they can cause issues if elementary students are being given these bottles to drink from on a daily basis.

These microplastics have been found in deep oceanic waters to freshly snowed tops of high mountains, even the highest mountains in the world. These plastics can also be found in human blood, lung tissue, and the brain. They can even get into the organelles in our cells. These plastics can even end up in organisims like plankton to whales, dolphins, even polar bears, and most sea species. Scientists have also found plastics contaminating the air that we breathe in.

There are 2 plastics named Phtalates and Bisphenols and they are endocrine disrupters that interfere with the body's hormonal systems. More exposure to the endocrine disrupters has caused higher risks of diabetes, obesity, cancers, and fertility problems, but if we cut off bottled water and stick to filtered water, we can reduce the exposure of these plastics. So if schools are using plastic bottled water they are contaminated with plastics and it will affect a child's health.

It is very easy to say that plastic water bottles should be banned from schools. There are so many alternatives to plastic water bottles, like metal bottles. James Roger said, you may not be able to reduce the exposure of these microplastics, but you can reduce the risks by reducing the exposure. Schools should be influencing students to quit these habits of using plastic water bottles with microplastics in them.