The Nose-Brain Connection

Many people view toxins in their environment as always being out around them, but never being able to enter their body. They may acknowledge that when they breathe, eat or touch toxins that some toxins may enter their body. Often the belief is held that although the toxins may enter the bloodstream, they won't be able to enter the brain, due to the blood-brain barrier.

The blood-brain barrier (BBB) is a membrane composed of endothelial cells packed very tightly in the brain capillaries. This restricts passage of some substances and protects the brain from harmful substances in the blood stream. It is structured to allow the nutrients required by the brain to pass through, but keeps toxic substances out of the brain. However, stress, some drugs, infections, and toxins can weaken or break down that blood-brain barrier so that toxins are able to cross the blood-brain barrier and enter the brain and the nervous system.

Also there is another avenue through which toxic chemicals can have direct access to the brain and nervous system that most people are unaware exists. This other avenue is the nose-brain connection. There is no blood-brain barrier between the nose and the brain. This layer of protection is not available when we inhale the toxic chemicals that are part of our everyday experience.

The olfactory and trigeminal nerves provide a connection between the brain and the outside environment. These nerves, which are involved in sensing odours and chemicals, descend down into the nose. Inhaled toxic chemicals can enter the brain by travelling along their neural pathways.

Therefore, toxic chemicals that are present in the air we breathe are able to have direct access to our brain and the rest of our nervous system, because of this neural connection between the nasal mucosa and the brain.

Therefore, we need to be on guard and protect our health by avoiding situations where we will be inhaling toxic chemicals. For example, wherever possible, it would be prudent to remove yourself from exposure to scented products, pesticides, strong chemical cleansers (both household and industrial), diesel fumes, cigarette smoke, burning plastic, solvents, and so on.

Especially be on guard against products that contain neurotoxins. For example, almost all insecticides and fungicides are neurotoxins. It would be very prudent to protect yourself from inhaling these toxins. They may be considered convenient, but they are purposely designed to be poison to the nervous system. Inhaling them will successfully deliver these poisons directly to their intended target – the nervous system.