

1. PCBs are man-made chemicals that are found in electrical equipment, surface coatings, inks, adhesives, flame-retardants, and paints. They are released into the environment when stored in landfills or incinerated. PCBs are made of carbon, hydrogen and chlorine atoms. There are 209 different PCBs, all of which are man-made. Possible exposure to humans is food, air and drinking water.

After entering the body, PCBs move into the cell membranes and into the blood and lymphatic vessels. They will usually concentrate in the liver, fatty tissue, brain and skin. Exposure to one large dose of PCBs can cause diarrhea, breathing difficulties, dehydration, decreased response to pain, and coma. PCBs were found to mainly damage the lungs, the stomach, and the pancreas. Lower doses of PCBs administered over a period of time can interfere with liver and thyroid function, and may, in the long term, lead to liver cancer. Effects on fertility, reproductive organs, and female hormonal activity have also been seen in test animals exposed for a long time to high doses of PCBs through their food. The offspring of animals fed PCBs during pregnancy and during breast-feeding may also be affected and many have shown learning and behavioral difficulties. In the young, development of the immune system and certain organs such as the liver, thyroid and kidney have also been affected by exposure to PCBs. Observed effects of PCBs on the immune system included a lesser production of antibodies, an increased susceptibility to disease, and decreased weight of the thymus gland. Adult animals appear to be less sensitive than the fetus to the effects of PCBs.

2. Most concern for exposure to sulfur dioxide is in gas form. It is a respiratory irritant and can be dangerous to life at levels of 100ppm or more. In wine it is regulated at “safe” levels but still poses a risk to workers who make wine as they may be exposed to the gas during the fermentation process. Sulfur dioxide is important to wine makers as an antimicrobial and an antioxidant. The overall focus of the wine industry concerning sulfur dioxide safety is in using less. During the crushing process, some winemakers are using lysozyme to kill bacteria which makes the use of sulfur dioxide less.

Sulfur dioxide free wine is possible with healthy fruit, scrupulous cleanliness and perhaps some tolerance for elevated vinegar. These wines may not be as tolerant to shipping worldwide or long-term storage. There are wineries that already employ this practice and are very successful.

3. Antacids – A specific type of antacid called a proton pump inhibitor can cause a vitamin B12 deficiency. The cells in the stomach that produce acid are also responsible for the production of intrinsic factor. This intrinsic factor is essential for the absorption of vitamin B12. Without vitamin B12 you may become anemic and lose nervous system

function as it is essential for the production of myelin sheathing of neuronal axons. The conventional wisdom that acid reflux is caused by excess production of stomach acid has been proven false. Dietary changes are advised if you have heartburn. You can also use natural foods like aloe juice to improve stomach function and nutrient absorption. If you must take an antacid you can switch to one that is not a proton pump inhibitor.

4. Aluminum chlorohydrate – This is one of the main active ingredients in antiperspirants. The FDA considers it safe and is permitted in concentrations up to 25%. Some studies have indicated that it can be absorbed transdermally and enter the brain. This is believed to contribute to Alzheimer's disease. There are natural alternatives to underarm antiperspirants and it seems a few people at Life West are dedicated to using them. Lets just say that the natural alternative is to just get used to the smell because none of them seem to work very well.

#### References

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