Summary

This report discusses the importance of electronic waste and biomass pollution. It will demonstrate the reasons why we need to recycle, reuse, and reduce the items we use to protect to reduce the amount of emissions being released to the environment. The parts of the environment contaminated by pollutants emitted from electronic waste and biomass pollution include the hydrosphere, geosphere, and the atmosphere.

This report will also determine possible solutions to the environmental problems caused by biomass and electronic waste pollution. It will also give recommendations on which solutions are the most important to implement.

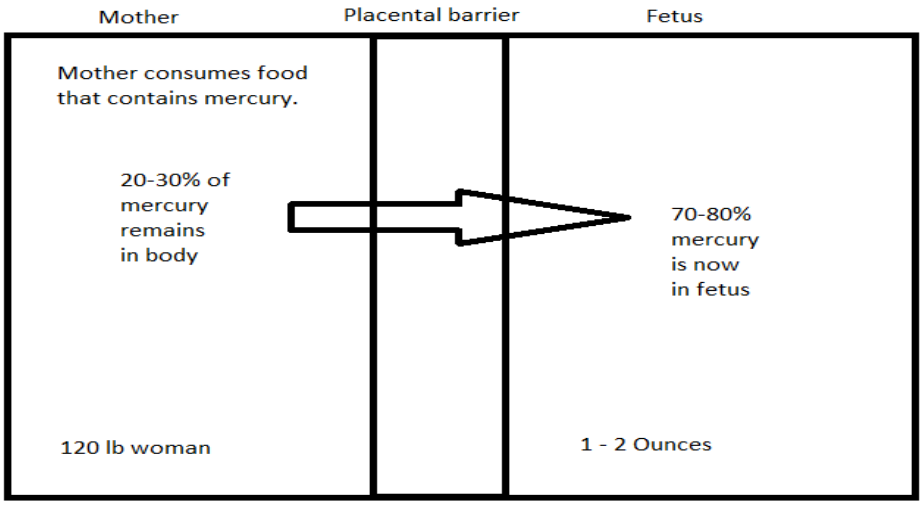

FIGURE 1: CONSUMED MERCURY IS PASSED FROM MOTHER TO THE FETUS, WHERE 70-80% OF THE MERCURY CONSUMED IS PRESENT IN THE HUMAN FETUS (MANAHAN, 2010).

The reason for the high percentage of mercury within the fetus is because the fetal enzymes and proteins contain more sulfur groups than the mother does. Mercury is reactive with sulfur, resulting in a higher concentration of mercury in the fetus than the mother. The figure below shows how mercury transfers from one sulfur group to another. This transfer is between the sulfur groups of albumin (Alb-SH), cysteine (Cy-SH), and the mercury form monomethyl mercury (CH_3Hg^+).

$$Al\text{-}S\text{-}Hg.CH_3 + Cy\text{-}SH = Alb\text{-}SH + Cy\text{-}S\text{-}Hg.CH_3$$

FIGURE 2: MERCURY EXCHANGE BETWEEN SULFUR GROUPS, FIGURE COURTESY OF (SUZUKI, IMURA, & CLARKSON, 1991)

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