Table 1. Xenobiotic Compounds in Adipose Tissue of U.S. Citizens. US EPA National Adipose Tissue Survey 1982

Compound	Frequency of Observation (%)	Wet Tissue Concentration (ng/g)
Styrene	100	8-350
1,4-Dichlorobenzene	100	12-500
Xylene	100	18-1,400
Ethylphenol	100	0.4-400
OCDD (dioxin)	100	19-3,700
HxCDD (dioxin)	98	ND-620
1,2,3,4,7,8,9-HpCDD	98	ND-1,300
Benzene	96	ND-97
Chlorobenzene	96	ND-9
Ethylbenzene	96	ND-280
p,p'-DDE	93	ND-6,800
1,2,3,4,6,7,8-HpCDF	93	ND-79
1,2,3,7,8,-PeCDD	91	ND-5,000
Toluene	91	ND-250
2,3,4,7,8-PeCDF	89	ND-90
Beta-BHC	87	ND-570
Total PCBs	83	ND-1,700
Chloroform	76	ND-580
Hexachlorobenzene	76	ND-1,300
2,3,7,8-TCDD	76	ND-14

normal list to look for the presence of 54 different environmental chemical toxins. Their results were astounding. Five of these chemicals – OCDD (a dioxin) and four solvents: styrene, 1,4-dichlorobenzene, xylene, and ethylphenol – were found in 100 percent of the samples (see Table 1). The quantitative ranges of these five compounds were also alarming. OCDD levels ranged from 19-3,700 ng per gram of fat, styrene 8-350 ng/g, 1,4-dichlorobenzene 12-500 ng/g, xylene 18-1,400 ng/g, and ethylphenol 0.4-400 ng/g. These alone would give each person a total toxic burden ranging from 57.4-6,350 ng of toxins per gram of fat.

Another nine chemicals were found in 91-98 percent of all samples, including such toxins as benzene, toluene, chlorobenzene, ethylbenzene, one furan, three dioxins, and DDE. DDE is formed by a partial dechlorination of DDT, which can occur in the human body within six months of exposure to DDT. It also occurs in nature, but studies vary as to the t1/2 of DDT in the environment. Previously the t1/2 of DDT was thought to be two years, but recent findings in Yakima, Washington indicate it may be decades in certain circumstances. Upon degradation, DDT becomes DDE or DDD.

In addition, PCBs were found in 83 percent of all samples and beta-BHC in 87 percent, yielding a total of 20 toxic compounds found in 76 percent or more of all samples. Seventy-six percent of individuals had as much as 25,704 ng of total toxic compounds per gram of fat.

Additional studies yielded similar results. A CDC study of 5,994 persons aged 12-74 years found 99.5 percent had p,p-DDE at serum levels equal to or greater than 1 part per billion (ppb), in a range of 1-379 ppb.[14] A study of adipose levels taken from autopsies of older subjects who had been Texas residents showed the presence of p,p-DDE, dieldrin, oxychlordane, heptachlor epoxide, and para-BHC in 100 percent of samples.[15] A study of four-year-old children in Michigan revealed the presence of DDT in 70 percent, PCB in 50 percent, and PBB in 21 percent.[16] Nursing was the primary source of exposure for these individuals. These ongoing assessments have shown quite clearly it is not a question of if