

LEAD SCREENING SUMMARY
1990 through 1995

Lead has been a concern of the Stamford Health Department since 1976, but the main screening method before 1990 was the Erythrocyte Protoporphyrin (EP) test. After 1990, blood was analyzed by the state health department for lead as the primary screening technique. Elevated levels would be referred to the hospitals for confirmation and then treatment using any screening method until 1990. After 1990, elevated values were confirmed using whole blood collected by the Stamford Health Department and analyzed by the state health department. It is from this recent screening effort where we draw the information for this report. Since 1990 there were 14,349 screening tests for blood lead level which represents 8,330 people, with 7,857 or 94.32% being children. From these screening tests, 2,261 tests or 16.04% showed elevated levels requiring confirmation. This represents a total of 1,714 children having an initial elevated lead value. There were 1,907 confirmatory tests were performed on 1,052 children.

These numbers seem to show 662 were not followed with a confirmation test and there are some explanations which account for this. There were several changes in the conditions where a child would be confirmed, one was accounted for, the change from 15 to 10 µg/dL, in 1992. There were several changes in 1990 and 1991 from using EP results to using blood lead and from using a level of 25 µg/dL to 15 µg/dL, which are not accounted for and some confirmatory results were performed directly by the treating hospital and results were not received by this department.

A direct comparison of the different methods used, filter paper versus microtainer, showed only a small difference in the percentage, 31 versus 25%, of confirmatory testing with high values. Specifically, using the filter paper technique, 1,137 children had elevated blood lead values, 475 were repeated and 145 of these were confirmed(31%). Using the microtainer method, 375 children had elevated values, and were repeated with 94 of these confirmed as being elevated(25.0%).

A yearly break down of screening results is shown.

year of test	total screening tests	total elevations	percent elevated
1990	1,737	*646	37.19 %
1991	2,033	*508	24.99 %
1992	3,237	*462	14.27 %
1993	2,786	277	9.94 %
1994	2,395	226	9.44 %
1995	2,146	142	6.62 %
1996	1809	71	3.92 %

year of test	total screening tests	total elevations	percent elevated
1997	1408	44	3.13 %
totals	17,551.00	2,376.00	13.54 %

*Elevation was considered to be greater than 14 µg/dL for these figures.

These results suggest a continuing effectiveness of the lead program, in education and abatement.