

Pharmaceuticals invade wastewater, causing concern

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Scientists are researching the cumulative affects of antibiotics and estrogen that have been discharged into our water supply from sewage treatment plants and elsewhere.

Recent reports show that changes in aquatic animals, particularly fish, have been evident.

Dr. Marc Siegel, contributor to Fox News, said on a Monday morning broadcast that the studies are new, and so far scientists are still attempting to filter out trace amounts of prescription drugs in the public water supply.

Scientists are also researching abnormalities in animals downstream from farm fields where the livestock are being treated with antibiotics. These studies are also in the beginning stages, he said.

Fish have shown sexual abnormalities connected to birth control pills, according to Robert B. Stanfield, a chemical engineer from Tincum Township. Fish populations have been declining and many of the males have

shown sexual abnormalities connected to birth control pills that are causing low reproduction.

Antibacterial soaps are toxic to shell fish. They are causing concerns about the decline in oysters in the Chesapeake Bay, Stanfield added.

The secondary problem to the contaminated fish population is the effect on the other creatures in the ecosystem that feed on the affected fish. Birds, for example that feed on the fish also pick up and suffer from the drug related problems in the fish.

Dr. Stanfield said that stream discharge, "even through current high end treatment plants," is the focus of investigation. "The biggest problem," he said, "is from antibacterials in soap. Other problem makers, previously mentioned are birth control pills and caffeine, most of which come from urine, with many more waiting in line.

"We are only just discovering now the problems coming from sewage treatment plants. We don't know the impact of all kinds of stuff coming out of those plants. The scary thing is

that some of the biologically active compounds are in parts per trillion. We haven't been able to measure them until recently. This research is very expensive."

Locally, for example, Stanfield stated, "The sewage treatment plants in Bedminster and Dublin discharge their treated sewage into the Deep Run which flows into the Tohickon Creek and then into the Delaware River.

He added, "There's all kinds of stuff coming down the Delaware River. People must be discouraged from flushing pills down their toilets. This is a potentially dangerous habit."

As to the disposal of sewage in homes with private septic systems, Stanfield said that they should be professionally cleaned every several years. He added, "Around here they are in good condition."

As to drinking water he said, "Well water is generally better than treated water. It has a greater ability to be cleaned up by filtering down through the ground. Generally if you have bacteria in the ground they eat pollutants, particularly the organics."