Reducing the Toxicity of Heavy Metals

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Water is indispensable for survival. But, it gets polluted by industrial effluents, domestic effluents etc. Due to water pollution, the world is facing acute scarcity of fresh water. Usage of contaminated water by masses paves way towards fatal diseases. This polluted water contains harmful substances or heavy metals like lead, cadmium, chromium etc. which are harmful for crops, their consumers and aquatic life. There is a dire need to introduce low cost, simple and effective method to deplete these heavy metals. Atomic Absorption Spectroscopy of untreated water samples (Controlled Group) shows that Chromium and Lead are present in our water samples. An experimental research that was conducted to eliminate chromium and Lead heavy metals from sewage water. Water samples were obtained from two different localities of District Mianwali, Punjab Pakistan. These samples were treated with 1gm, 2gm, 3gm doses of different plants peels i.e. Bitter Apple, Cucumber and Persimmon plants peels powders for 24 hours and 48 hours respectively. Treated water Samples (Experimental Group) were analyzed by applying advanced spectroscopic technique namely Atomic Absorption Spectroscopy .Results shown that Bitter Apple peels powder is most effective biosorbent.Moreover,3gm/liter dose of Bitter Apple plant used for 24 hours has reduced the amount of lead and chromium at best level. Advances of this research will provide us a method of removing heavy metals from sewage water.