

Grace Romer
Searching for Clarity: Drop by Drop

My question is “Which type of filter works best when filtering contaminated water?”

I collected 21 water samples then tested each for eight contaminants. I then compared the results to see which had the most contamination. As shown in my graphs, all of the samples contained alkalinity, varying from 40-190 ppm; the LifeSaver, LifeStraw and Sawyer samples had no bacteria present; all of the water samples had a safe pH level, from 6.5-8.5; no water samples contained nitrite; the LifeStraw (1.3 ppm) and the Sawyer (1 ppm) filter samples were the only ones with nitrate present; no water samples contained free chlorine; the LifeSaver, homemade and dirty water control samples had the highest level of water hardness, at 800 ppm; and the LifeStraw sample was the only one that contained total chlorine (.33 ppm).

I discovered that it is important to choose the type of water filter you use, because not all work properly.

My discovery can help the world, because it shows that there is an easy way to filter water. Three of the water filters produced safe water to drink and they were easy to use. If we are able to give third world countries these filters and teach them how to use them, we can save over 5,000 lives a day.