The Effect of Cooking Methods on the Levels of Omega-3 Fatty Acids in Sockeye Salmon

Abstract
The research question for this study was which method of cooking results in the highest levels of omega-3 fatty acids? It was hypothesized that if wild-caught Alaskan sockeye salmon were prepared by the cooking methods of raw, pan fried, smoked, grilled, and baked, then the baked salmon would contain the highest omega-3 fatty acid content. Salmon is a popular fish that is sold locally in grocery stores. The consumption of omega-3 fatty acids through fish such as salmon can benefit a person's health. The cooking method of salmon can have an effect on the health benefits of salmon through variation in fat levels. A salmon fillet was bought, cut, and cooked by the cooking methods of raw, pan fried, smoked, grilled, and baked. A lab technique was used to break down the salmon tissues to just the desirable fats before the fats could be identified and measured by gas chromatography. The omega-3 fatty acids EPA and DHA had significantly higher levels of fats in the baked salmon and the lowest levels in the pan-fried samples. Future research could include the effect of seasonings, oils, and spices on the levels of fats.