

[News story: GC collaborates in research about dangers in food supplements](#)

Hidden ingredients in food supplements

Food supplements of herbal origin are now commonly used by many people as part of their personal healthcare regimens and there has been a tremendous growth in the supplies and sales of supplements. However, food supplements are at risk from contamination on a global scale with illegal ingredients.

According to a team of experts from Queen's University Belfast, Kingston University and the Government Chemist at LGC that included Emeritus Professor Duncan Burns, Dr Michael Walker and Professor Declan Naughton, many food supplements contain hidden pharmaceutical ingredients that could be causing serious health risks.

Their research, outlined in a peer-reviewed paper, found that over-the-counter supplements – commonly advertised to treat obesity and erectile dysfunction problems – are labelled as fully herbal but often include potentially dangerous pharmaceutical ingredients, which are not listed on the label.

Professor Burns, Queen's University, explained:

Our review looked at research from right across the globe and questioned the purity of herbal food supplements. We have found that these supplements are often not what customers think they are – they are being deceived into thinking they are getting health benefits from a natural product when actually they are taking a hidden drug.

These products are unlicensed medicines and many people are consuming large quantities without knowing the interactions with other supplements or medicines they may be taking. This is very dangerous and there can be severe side effects.

Health consequences

The research raises serious questions about the safety of slimming supplements (Sibutramine, withdrawn from license in 2010) and undeclared ingredients in erectile dysfunction supplements (Tadalafil, sulfoildenafil). These ingredients can react with other medications, for example those containing nitrates, and cause serious health problems.

Professor Burns noted:

This is a real issue as people suffering from conditions like diabetes, hyperlipidemia and hypertension are frequently prescribed nitrate containing medicines. If they are also taking a herbal supplement to treat erectile dysfunction, they could become very ill.

Next steps

The research paper describes the laboratory methods and techniques that can help with supplement testing in the future to ensure the safety of consumers. It highlights the vital role research and, in particular, techniques like data-mining, can play in informing regulators about current trends in supplement contamination.

Dr Michael Walker commented:

The laboratory tests we describe in our paper will assist regulators to tackle this problem proactively to protect consumers and responsible businesses.

Professor Declan Naughton explained:

This is very important to ensure effective testing strategies and, ultimately, to help keep the public safe.

The research described has been published by the Journal of the Association of Public Analysts (online) and can be accessed [here](#).