YOUR GUIDE TO DETECTING

HEALTH FRAUD

BE AWARE OF COMMONLY USED HEALTH FRAUD METHODS

Cancer, diabetes, and HIV/AIDS fraud: These conditions require individualized treatments by a physician. Relying on unproven products or treatments can be dangerous, and may cause harmful delays in getting the proper treatment.

Arthritis remedies fraud: Symptoms of arthritis tend to come and go so it's easy to fall prey to so-called "treatments", such as magnets, copper bracelets, chemicals, special diets, and electronic devices. Some of these products could be harmful, are expensive, and aren't likely to help.

Bogus dietary supplements: Many supplements offer health benefits, but claims to treat or cure diseases are unproven and not allowed by law. Increasingly, so called "dietary supplements" are found to contain hidden illegal drugs and other chemicals that could cause serious harm. This is especially true for weight loss, sexual enhancement, and bodybuilding "supplements."

Weight loss scams: Ads that promise "quick and easy" or "rapid" weight loss without diet or exercise are almost always false. A reasonable and healthy weight loss is about 1 to 2 pounds a week.

Anti-aging scams: Despite claims about pills or treatments that lead to endless youth, no treatment has been proven to slow or reverse the aging process.

Diagnostic tests fraud: Don't use "medical" tests that are not approved or cleared by the Food and Drug Administration (FDA). They are often used to get you to buy products you don't need, and give inaccurate and/or useless results.

Influenza (flu) remedies fraud: Though they may promise to help you avoid the latest flu or get well faster, there is little or no evidence to support these claims.

TIP-OFFS TO RIP-OFFS

One Product Does It All: Be suspicious of products that claim to cure a wide range of unrelated diseases. No product can treat every disease and condition, and for many serious diseases, there are no cures, only therapies to help manage them.

Personal Testimonials: These are commonly actors playing “real people” or “doctors.” Testimonials are not a substitute for scientific proof and can be a tip-off that it’s a scam.

Quick Fixes: Be wary of talk that suggests a product can bring quick relief or provide a quick cure, especially if the disease or condition is serious. Even with proven treatments, few diseases can be treated quickly.

‘Natural’: Don't be fooled by the term "natural” that suggests a product is safer than conventional treatments. "Natural" doesn't necessarily equate to safety because some plants--for example, poisonous mushrooms--can kill when ingested. Among legitimate drug products, 60 percent of over-the-counter drugs and 25 percent of prescription drugs are based on natural ingredients. Remember that any product--synthetic or natural--potent enough to work like a drug is going to be potent enough to cause side effects.

Satisfaction Guaranteed: Here's another red flag: money-back guarantees, no questions asked. Good luck getting your money back. Marketers of fraudulent products rarely stay in the same place for long. Because customers won't be able to find them, the marketers can afford to be generous with their guarantees.

Meaningless Medical Jargon: "One of the many natural ingredients is inolitol hexanicontinate." Terms and scientific explanations such as these may sound impressive and may have an element of truth to them, but it’s hard to discern fact from fiction. Fanciful terms generally cover up a lack of scientific proof.

References:
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STRENGTH OF STUDIES

Not all research studies are created equal. The following studies are ranked by increasing strength of evidence and are the studies typically seen in the medical feild.

ANECDOTAL & EXPERT OPINION

Anecdotal evidence is someone's own personal experience and may differ from others' typical experience. An expert opinion is a stand-alone opinion from someone with the appropriate credentials. These represent the weakest type of evidence if not backed up by other credible research studies. A lot of what is found in the media falls into this category.

ANIMAL & CELL STUDIES

Research done in animals and cells can be beneficial in extrapolating evidence, but the results from both can still differ significantly from how they would result in humans. Further studies conducted in humans are required to validate and confirm results.

CASE REPORTS & CASE SERIES

Case reports are a written record of something that occurred in a particular subject or patient. Although low on the evidence scale, they can aid in the discovery of new diseases. A case series is similar but tracks multiple subjects. Both can evaluate correlation, but cannot prove causation.

CASE CONTROL STUDIES

Case-control studies are retrospective, looking into the past to see how something occurred in two different groups. One group has a particular characteristic or condition and the other group doesn't. The purpose is to determine if there was something in particular that might have contributed to this characteristic. These studies can demonstrate correlation but it's still difficult to determine causation.

COHORT STUDIES

Cohort studies are similar to case-control studies in that they observe groups of people who have a certain exposure and those who don't. However, cohort studies follow these groups into the future and observe outcomes over a specific period of time. These studies are commonly used to investigate causes of disease and links between risk factors and health outcomes.

RANDOMIZED CONTROL TRIALS

Randomized control trials randomly place study subjects into a treatment group or a control (commonly placebo) group and are observed to see if they meet pre-determined outcomes. Blinding in these studies keeps the study subject from knowing if they received the treatment or not. Double blinding blinds the study subject and the experimenters from who receives treatment to reduce bias in the study. These studies drive a lot of medical practices.

SYSTEMATIC REVIEWS

Systematic reviews evaluate multiple randomized controlled trials and their quality to draw their conclusions. Reviews can help decrease bias in individual studies and give us a more complete picture on a given outcome. This approach makes them the strongest source of evidence.

SPOTTING BAD SCIENCE

It is incredibly easy to fall victim to bad science if research is not your area of expertise. These tips will help you recognize exaggerated claims and poorly done research.

SENSATIONALIZED HEADLINES

Headlines are often designed to entice readers to want to read their information. This can over-simplify research findings or even sensationalize and misinterpret them. Try to read the original research study instead of relying solely on headlines and news articles.

CONFLICTS OF INTEREST

Many companies will employ their own scientists to conduct their research. This doesn't make the research invalid, but it should be evaluated with this in mind. Some research can be skewed for financial gain.

CORRELATION & CAUSATION

Be wary of the difference between correlation and causation. Just because two variables correlate, does not mean one causes the other. Global warming has increased since the 1800's and pirates have decreased, but lack of pirates doesn't cause global warming.

UNSUPPORTED CONCLUSIONS

Sometimes speculation can help drive research forward, however, studies should be clear about what their study proves and what it doesn't. Oftentimes, speculative claims require further research to prove.

PROBLEMS WITH SAMPLE SIZE

In research studies, the larger the sample size, the more confidence there is in the results. Research from smaller studies with fewer participants can still be valid, but larger studies provide more representative results.

IRRELEVANT OUTCOMES

Some research outcomes aren't clinically relevant. For example, if a study tested hydroxychloroquine against COVID-19 and the outcome was a negative virus test, it wouldn't tell us much if none of the patients survived despite a negative test. Measuring mortality benefit would be a more relevant outcome.

UNREPRESENTATIVE SAMPLES

Subjects that are selected for human trials should be representative of a larger population. If the study sample is different from the population as a whole, the conclusions may be biased or not completely relevant.

NO CONTROL GROUP

A control group is a group of participants in a study not receiving the treatment being tested to help determine if the treatment shows a benefit or not. Without a control group it is impossible to know if a treatment works better than receiving a placebo.

NO BLINDING USED

To try to minimize bias, study participants should not know if they are receiving the actual treatment or not. To further decrease bias "double blinding" also blinds those conducting the experiment. Keep in mind though that blinding is not always feasible and ethical.

SELECTIVE REPORTING

This is a form of 'cherry picking' where the data that supports a desired conclusion is presented and the data that doesn't support it is left out. If a research study draws conclusions from only select results, it may be guilty of this.

UNREPLICABLE RESULTS

Study results should be able to be replicated by other independent studies and tested in different conditions to ensure consistency. Extraordinary claims require extraordinary evidence which should be much more than one independent study.

NO PEER REVIEW

Peer review is a very important aspect of published research. Scientists and other professionals appraise and critique studies before they are published in journals. If a study has not gone through this process it is not as reputable and may be flawed.