



# USAsthma SUMMIT 2023

# The Impact of Social Media in Patient Care Decisions

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# Disclosures

- Social Media Medical Editor – American Academy of Allergy, Asthma and Immunology
- Associate Editor – Annals of Allergy, Asthma and Immunology
- Consultant – ARS Pharmaceuticals
- Honoraria – ACAAI, AAP, AAAAI
- Royalties – Springer Publishing
- Non-financial:
  - Member - Board of Regents, ACAAI



# Objectives

- Appreciate the various ways in which patients are influenced by outside sources of information
- Understand the origins surrounding misconceptions specific to asthma
- Develop tools to proactively combat misinformation

# My Main Goal

Take you  
down the  
rabbit hole



Offer  
practical  
tips for  
helping out

# What Does ChatGPT Have to Say?



impact of google on patient care



Google, as one of the world's leading technology companies, has had a significant impact on patient care in various ways. Some of the key areas where Google's influence is notable include:

Medical  
information  
access

Symptom  
checker

Research  
Publications

Health  
services  
Products

Electronic  
health  
records

AI  
Machine  
learning

Health  
initiatives

Awareness  
Education

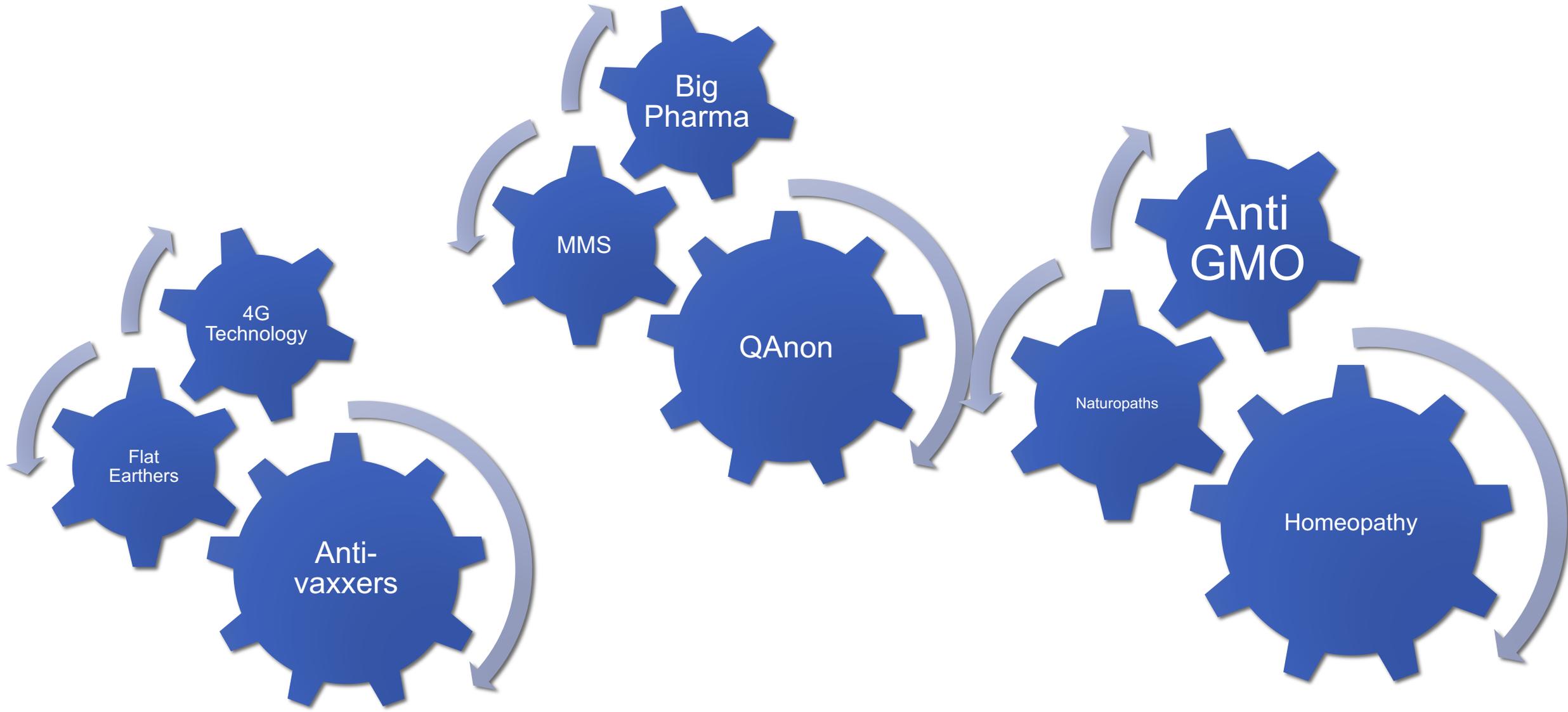
# Mis-in-fer-mey-shuhn

noun

1. false information that is spread, regardless of whether there is intent to mislead

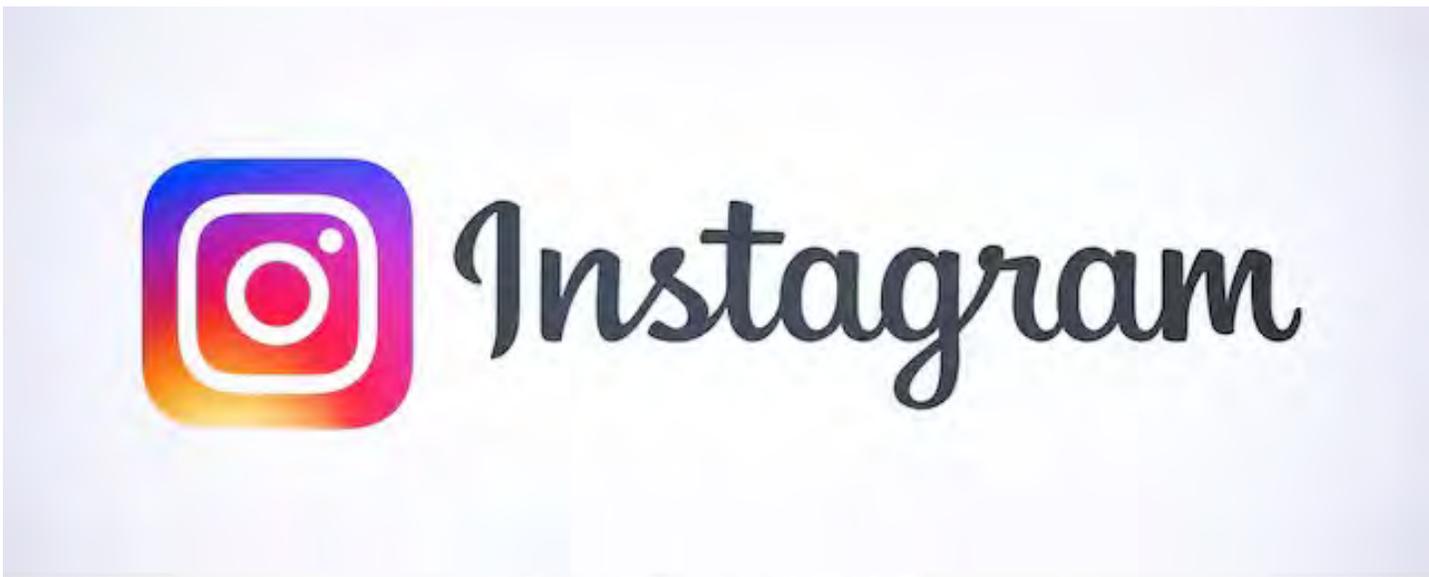
Dictionary.com 'Word of the Year' in **2018**

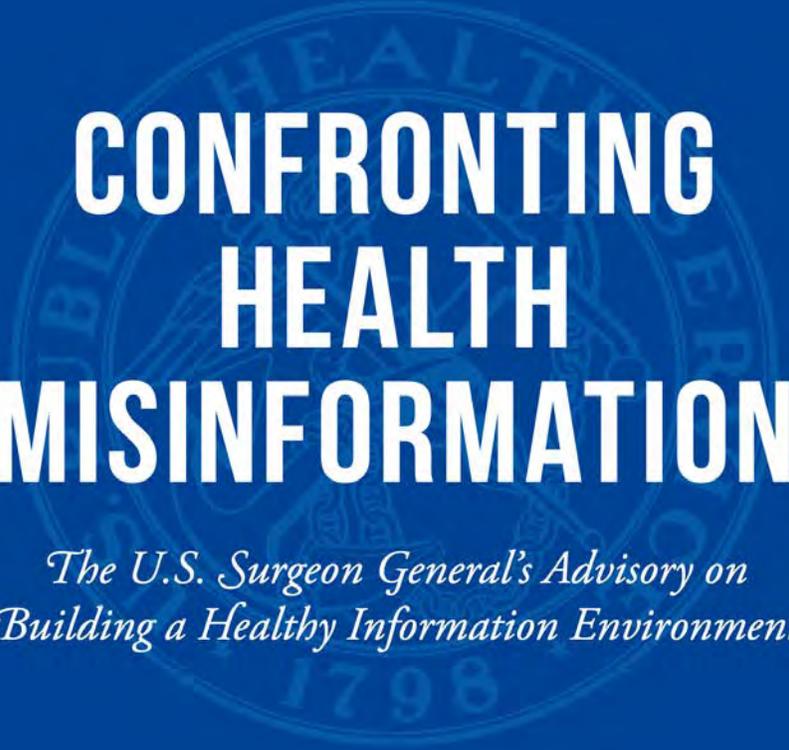
# Misinformation BEFORE COVID-19



# COVID-19: An 'Infodemic'





The background of the central panel is a solid blue color. In the center, there is a faint, circular seal of the U.S. Surgeon General. The seal features a central figure holding a staff with a snake, surrounded by the text "DEPARTMENT OF HEALTH & HUMAN SERVICES" and "U.S. SURGEON GENERAL" with the year "1798" at the bottom. Overlaid on this seal is the main title in large, white, bold, sans-serif capital letters.

# CONFRONTING HEALTH MISINFORMATION

*The U.S. Surgeon General's Advisory on  
Building a Healthy Information Environment*

2021

# There MUST Be Something Wrong...





🔍 how can I treat asthma |



🔍 how can I treat asthma - Google Search

🔍 how can i treat asthma **without an inhaler**

🔍 how can i treat asthma **cough**

🔍 how can i treat **my** asthma **on my own**

🔍 how can **you** treat asthma

🔍 how treat asthma **attack**

🔍 how can i **permanently cure** asthma

Chronic  
disease

No known  
cause or  
cure

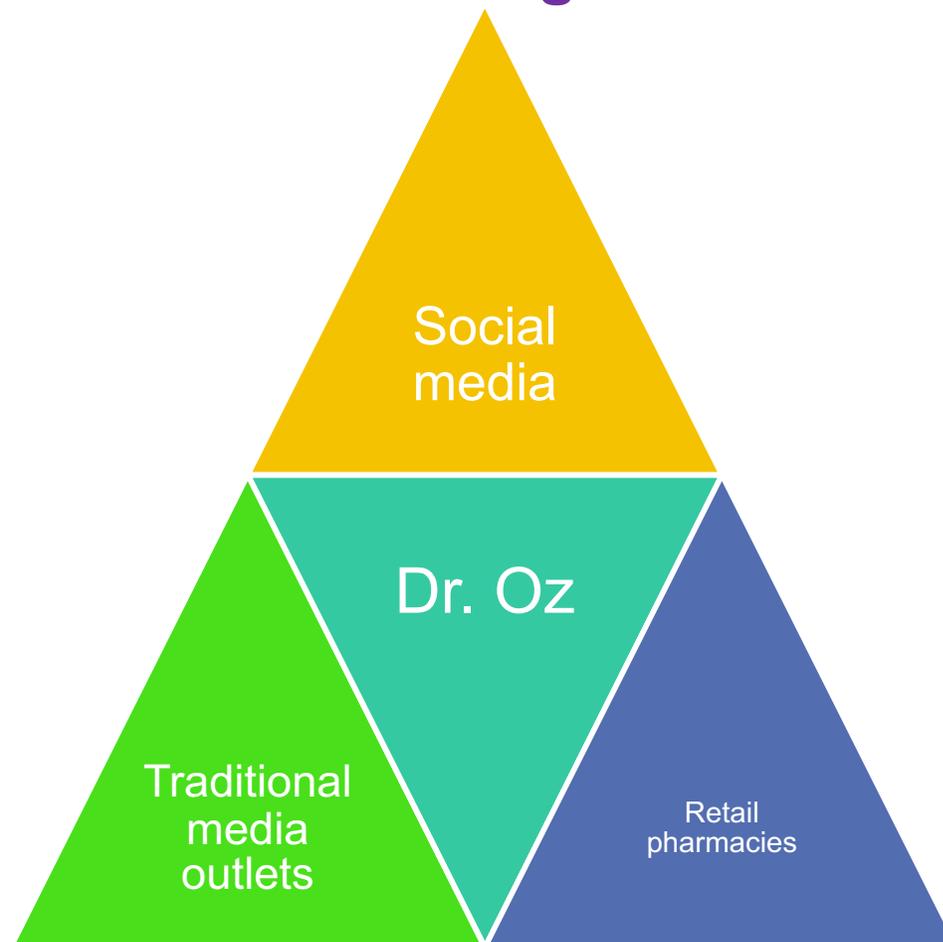
Desperation



# Here's the Playbook...

1. Medical expertise or celebrity testimonial
2. Pseudoscientific explanation
3. Provide list of “research”
4. Discuss why everyone else is wrong
5. Make broad claims
6. **Sell, sell, sell!!!!**

Normalize through saturation



# Natural Remedies for Asthma



Medically Reviewed by [Carmelita Swiner, MD](#) on November 12, 2022 | Written by [WebMD](#)  
[Editorial Contributors](#)

Acupuncture

Biofeedback

Herbs

Asthma diet

Plant based diet

Weight loss

Caffeine

Yoga

Buteyko breathing

Papworth method

**Can eliminate  
asthma by 99%...if  
you follow my  
advice**

**Remove your food  
sensitivities**  
-Gluten  
-Dairy

**Avoid phlegm foods:  
Sugar!!!  
Milk  
Bananas**

**Bone broth &  
omega-3's reduce  
inflammation**

**SUPPLEMENTS!!!!**

**If you've ever struggled with asthma, you  
know that it can be really a debilitating**

How I Cured My  
**ASTHMA**  
IN 3 MONTHS

12:44

RABEAKRAM

**HOW**   
**I CURED**  
**MY**  
**ASTHMA**

18:54

How I Healed My  
**ASTHMA**  
NATURALLY

8:30

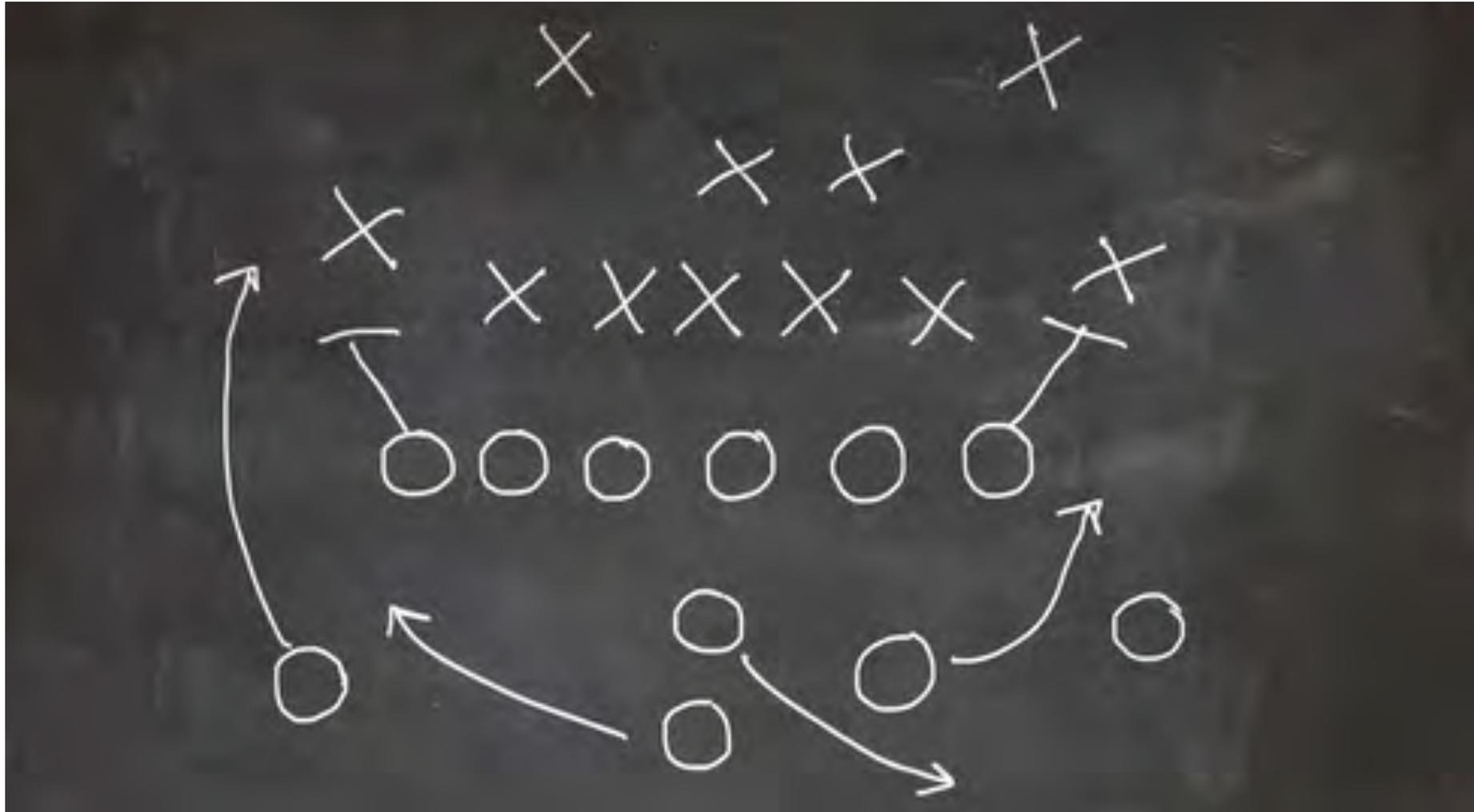
**TOP 5**  
**VITAMINS**  
**TO CURE**  
**ASTHMA**

8:36

**CURE ASTHMA**  
THE NATURAL WAY

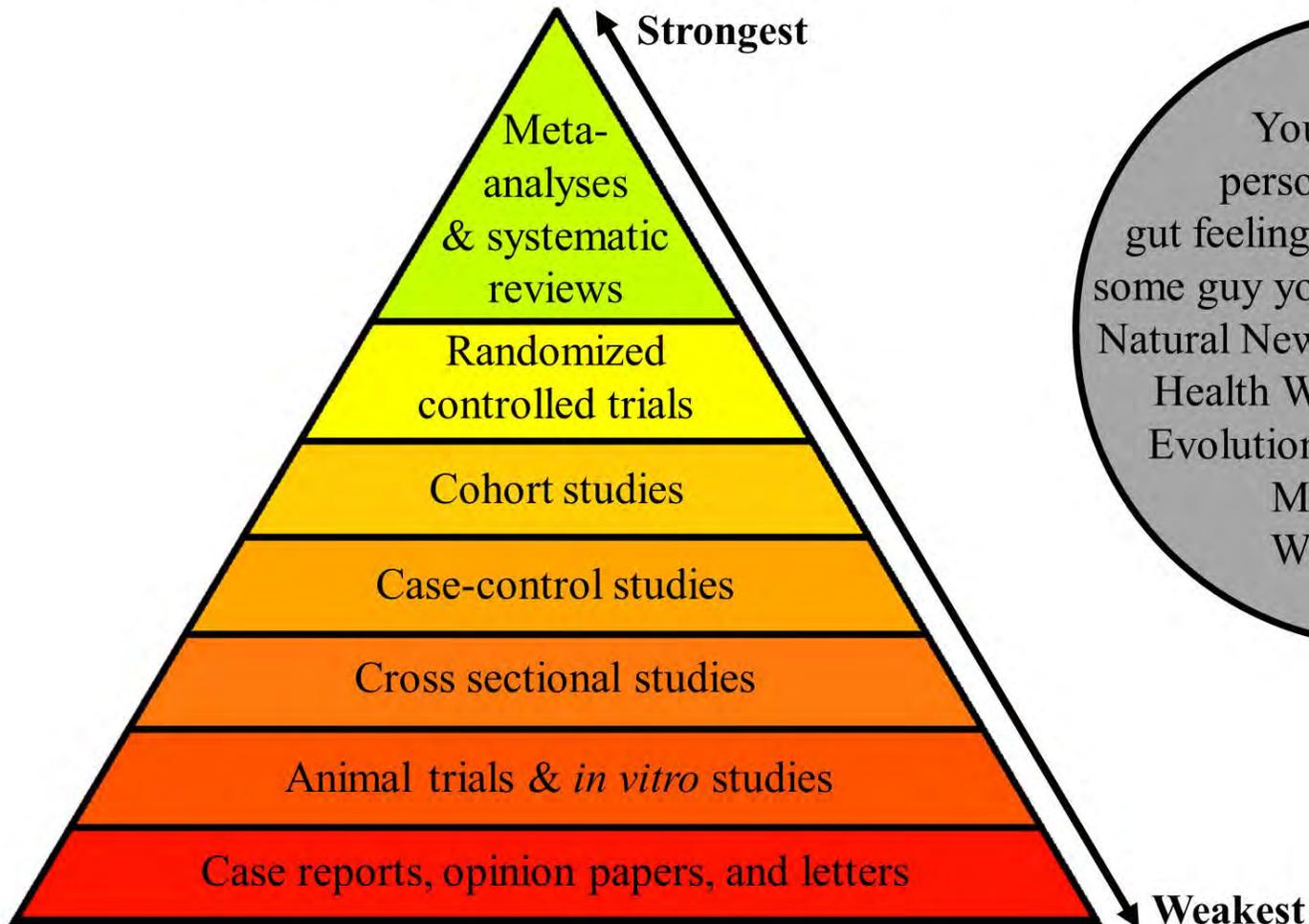
1:23

# The Best Defense...is a Good Offense



# What Constitutes Evidence?

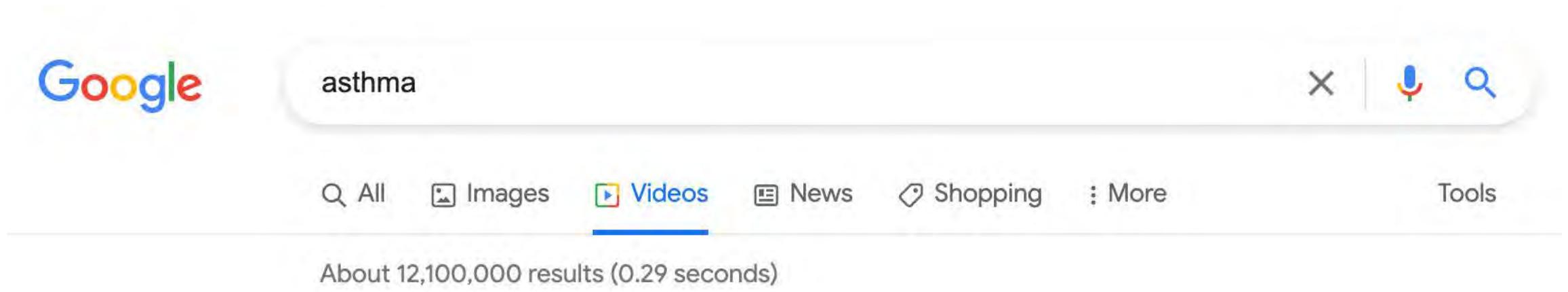
## Hierarchy of Scientific Evidence



## Not Scientific Evidence

Youtube videos, personal anecdotes, gut feelings, parental instincts, some guy you know, websites like Natural News, Info Wars, Natural Health Warriors, Collective Evolution, Green Med Info, Mercola.com, Whale.to, etc.

# Quality Matters

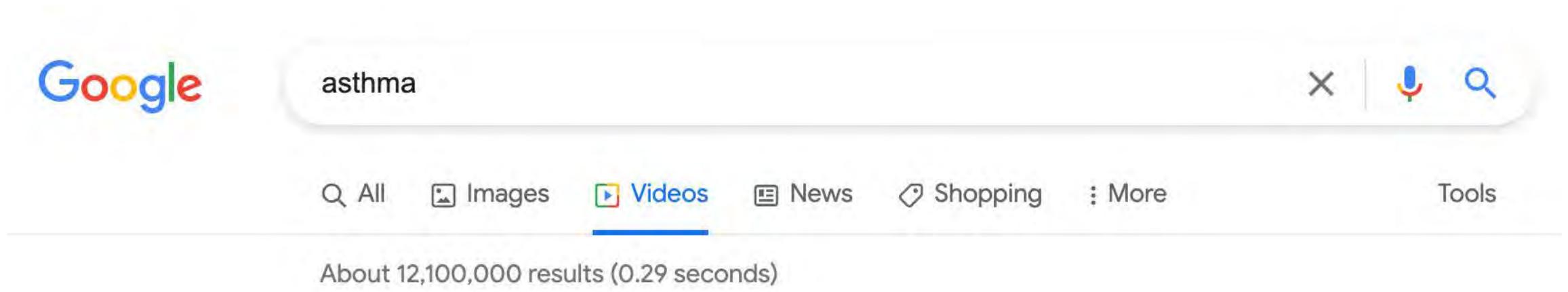


1. Kaul V, et al. J Asthma. 2022 Feb;59(2):325-332.

2. Wu AC, et al. J Allergy Clin Immunol Pract. 2022 Feb 22:S2213-2198(22)00142-8.

3. Kornafeld A, Gonzalez-Estrada A, Dimov V. 'Googling' anaphylaxis. Curr Opin Allergy Clin Immunol. 2019 Oct;19(5):432-438.

# Quality Matters



1. Kaul V, et al. J Asthma. 2022 Feb;59(2):325-332.
2. Wu AC, et al. J Allergy Clin Immunol Pract. 2022 Feb 22:S2213-2198(22)00142-8.
3. Kornafeld A, Gonzalez-Estrada A, Dimov V. 'Googling' anaphylaxis. Curr Opin Allergy Clin Immunol. 2019 Oct;19(5):432-438.

## Essential oils for asthma



Natalia Sereda/Getty Images

Some studies have suggested that substances in some essential oils may offer health benefits for people with asthma. These essential oils include the following:

**Lavender:** People use this essential oil for a variety of purposes. A mouse [study](#) published in 2014 showed that lavender essential oil has natural anti-inflammatory characteristics. It may help people with bronchial asthma by reducing the [inflammation](#) of the airways.

**Eucalyptus:** [Research](#) suggests that eucalyptus oil may have anti-inflammatory properties.

**Tea tree oil:** In a small [study](#) published in the British Journal of Dermatology, findings showed that tea tree oil could reduce skin inflammation that occurs in response to histamine.

Histamine is a chemical that the body produces in an allergic reaction. Allergens trigger asthma in many people, and tea tree oil might help reduce the inflammation that occurs as a result.

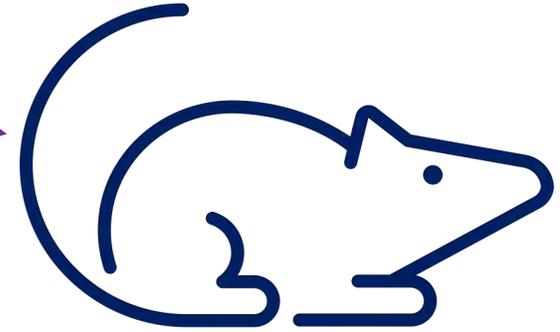
However, the study involved only 27 people, and there is currently no further evidence to support its findings.

**Roman chamomile:** Chamomile is another essential oil that [studies](#) have shown to have anti-inflammatory properties.

[Research](#) has also found that chamomile can help relax the bronchi, which are the airways linking the windpipe to the lungs. As a result, it may also relieve coughing.

**Pistacia integerrima:** Also known as karkatshringi, people in India use this plant to treat asthma, [bronchitis](#), and other conditions.

In a [study](#) published in 2014, scientists used laboratory tests to demonstrate that the essential oil from Pistacia integerrima may help treat bronchial asthma. It may be beneficial due to its antihistaminic activity.



Extrapolation from non-asthma studies

Completely random or dead link

Human study with bad methodology

# Pseudoscience Bingo!!!

<b>Inflammation</b>	<b>Free radicals</b>	<b>Detox</b>	<b>Celebrity endorsement</b>	<b>Energy</b>
<b>Cleanse</b>	<b>Fatigue</b>	<b>Crystals</b>	<b>Naturopathic</b>	<b>All natural</b>
<b>Chemical free</b>	<b>Ancient Wisdom</b>	<b>FREE SPACE</b>	<b>Instinctively know best</b>	<b>Organic</b>
<b>Conspiracy</b>	<b>Molecules</b>	<b>Toxins</b>	<b>Cure</b>	<b>'Western' Medicine</b>
<b>Pharma shills</b>	<b>"Science doesn't know everything"</b>	<b>Government/mind control</b>	<b>Miracle</b>	<b>Magnetic</b>

## Can Himalayan Salt Lamp Treat Asthma?



“The main culprit of asthma lies in the water vapors that dance around in our room as they are filled with allergens like smoke odor, mold, germs, dust, pollens, pet dander as well as viruses”

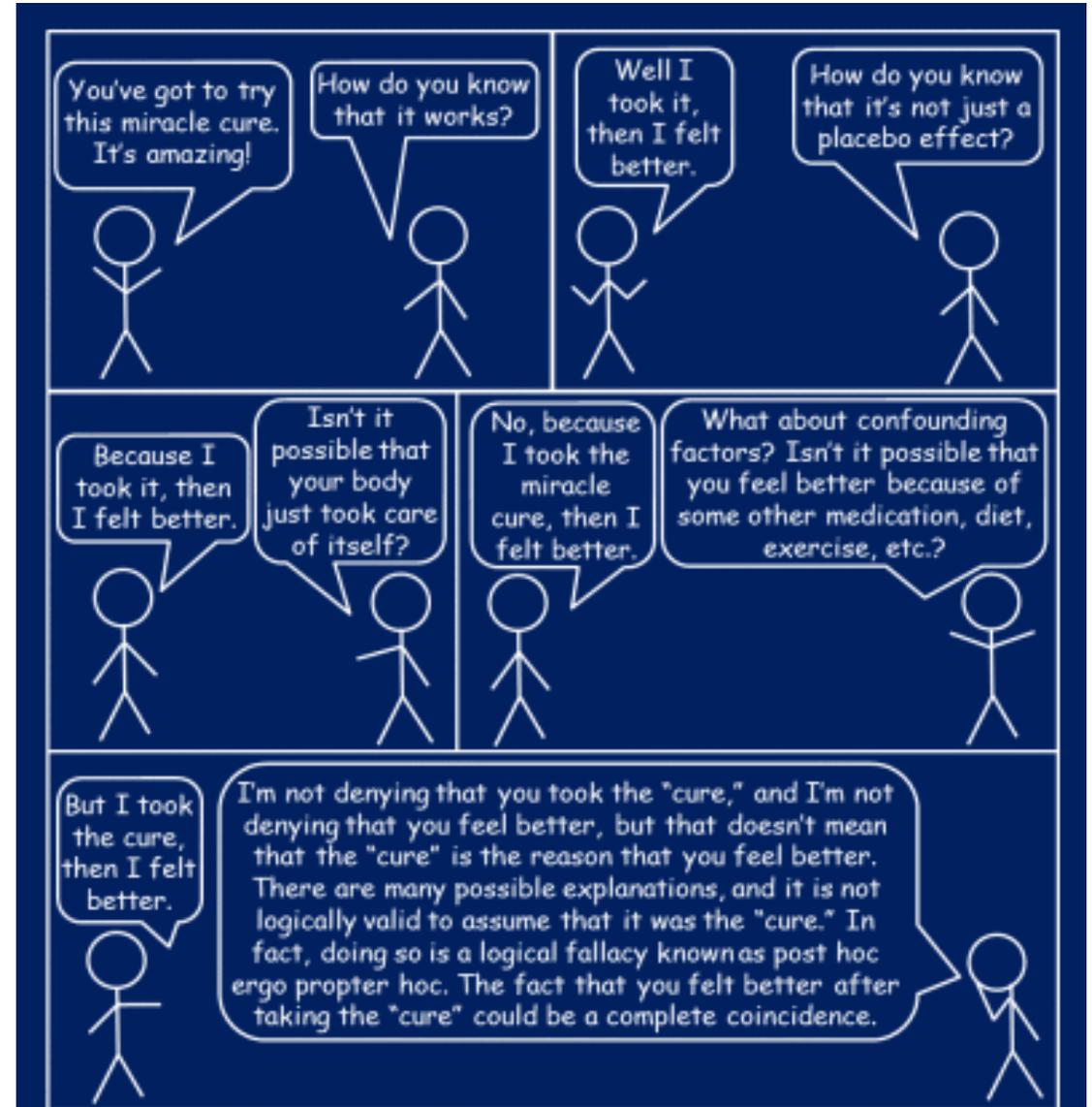
“surface of this pink salt attracts moisture or water particles from the air is because of its astounding hygroscopic properties”

“they constantly purify the air”

“surrounded by negative ions”

# The Plural of Anecdote...is NOT Data

- Logical fallacy
  - *Post hoc ergo propter hoc* = “after this, therefore because of this”
  - X happened before Y...therefore, X caused Y
- True representation is lacking
  - How many others tried and failed?
- No control → placebo effect



# Asthma in Movies and Television



Health

Related Condition Centers Asthma

## Please Stop Giving All Nerdy Pop Culture Characters Asthma

Why do all nerds have inhalers?

By Kate Gardner

August 24, 2018

<https://www.self.com/story/stop-giving-nerdy-pop-culture-characters-asthma>

Co



D

<https://www.t>



# **Study tries to see whether child vaccines and asthma are linked**



**Dr. Drew** ✓

@drdrew



So disturbing. Another athlete who dropped suddenly. 🙏🙏🙏



**Adam Housley** ✓ @adamhousley · Jan 2

Prayers for Hamlin. Not sure if ur watching the game...but whatever you believe...send it his way. This doesn't look good.

9:08 PM · Jan 2, 2023 from Newark, NJ · 5M Views

FORBES > INNOVATION > HEALTHCARE

CORONAVIRUS

# Anti-Vaxxers Exploit Damar Hamlin's Crisis With Unfounded Covid-19 Vaccine Claims

**Bruce Y. Lee** Senior Contributor ⓘ

<https://www.forbes.com/sites/brucelee/2023/01/03/anti-vaxxers-exploit-damar-hamlins-crisis-with-unfounded-covid-19-vaccine-claims/?sh=390e8fe41ba0>

# natural awakenings

FAIRFIELD & SOUTHERN LITCHFIELD COUNTIES

## GMO Effects on Asthma, Allergies and Eczema

Jul 02, 2013 05:11PM ● By Dr. Mark Joachim, DC, FIAMA

“toxins” = 8  
times



“inflammation”  
= 4 times

<https://www.enaturalawakenings.com/2013/07/02/232815/gmo-effects-on-asthma-allergies-and-eczema>



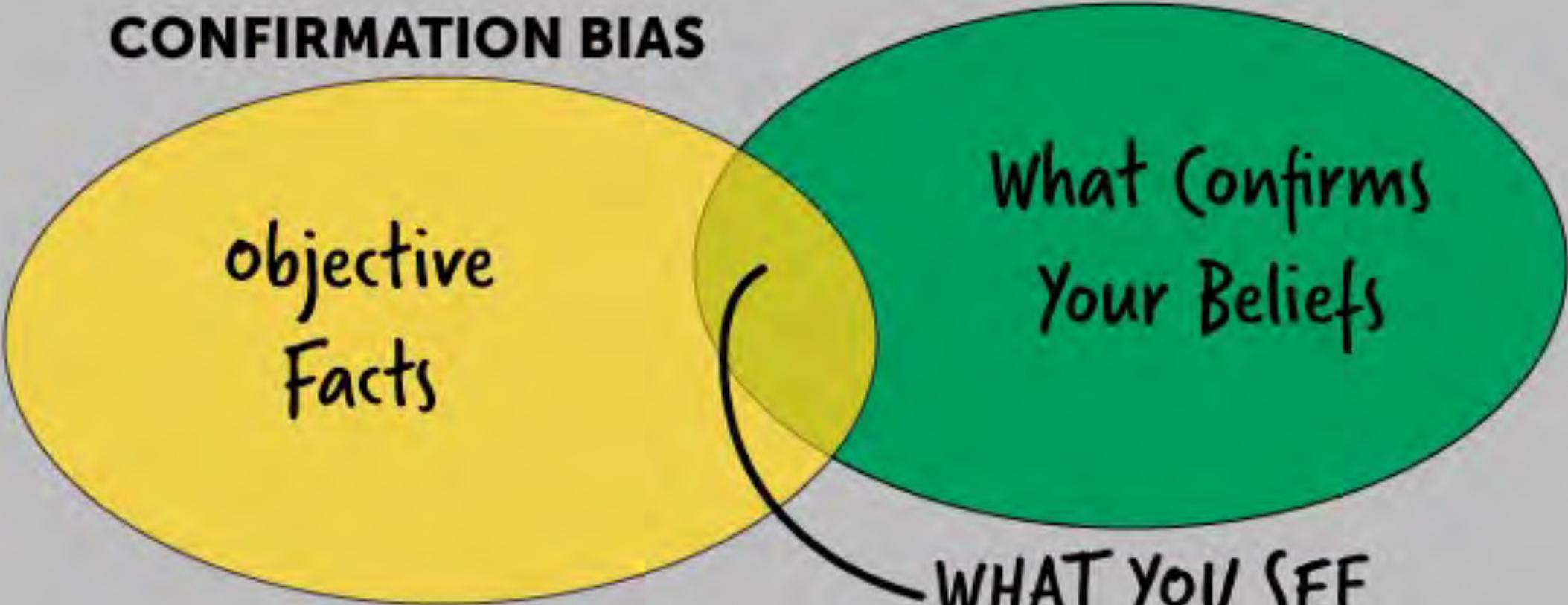


## CONFIRMATION BIAS

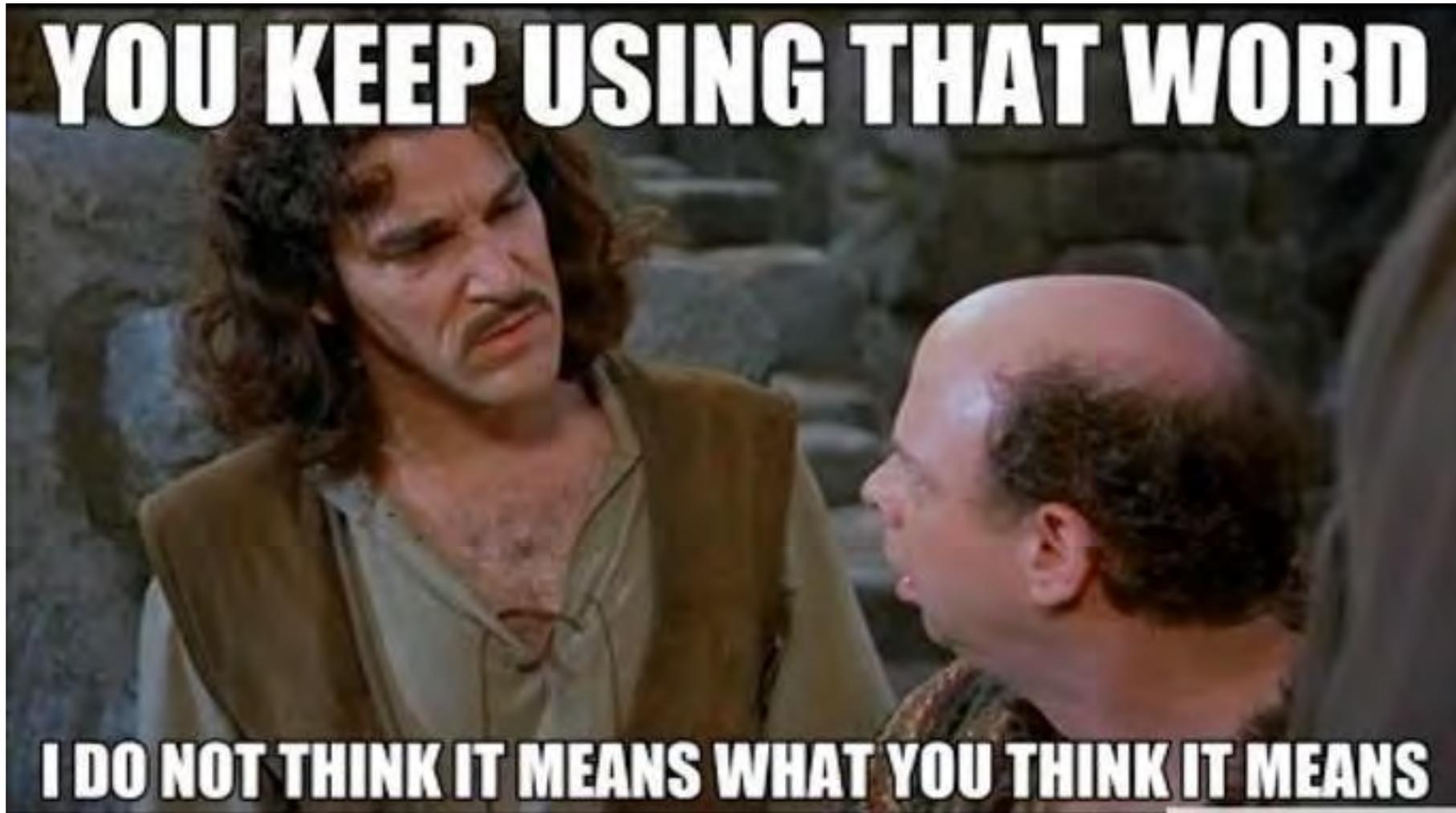
objective  
Facts

What Confirms  
Your Beliefs

WHAT YOU SEE



“Research”



# “Research” in 2023

## Preconceived Notions

- Beliefs
- Family
- Support system

## Internet Search

- Social media
- Echo chambers
- Misinformation

## Confirmation Bias

- Focus on information that supports beliefs
- Cherry pick data
- Ignore opposing data

# Google University of Medicine

*This certifies that Dr: \_\_\_\_\_ on recommendation of  
the faculty of the Google University of Medicine has conferred the degree of:*

## Internet Doctor of Medicine

*Who has honorably fulfilled all the requirements prescribed by  
the university for that degree.*



*President*

*[Signature]*

*Director*

*[Signature]*

# What's the Harm?

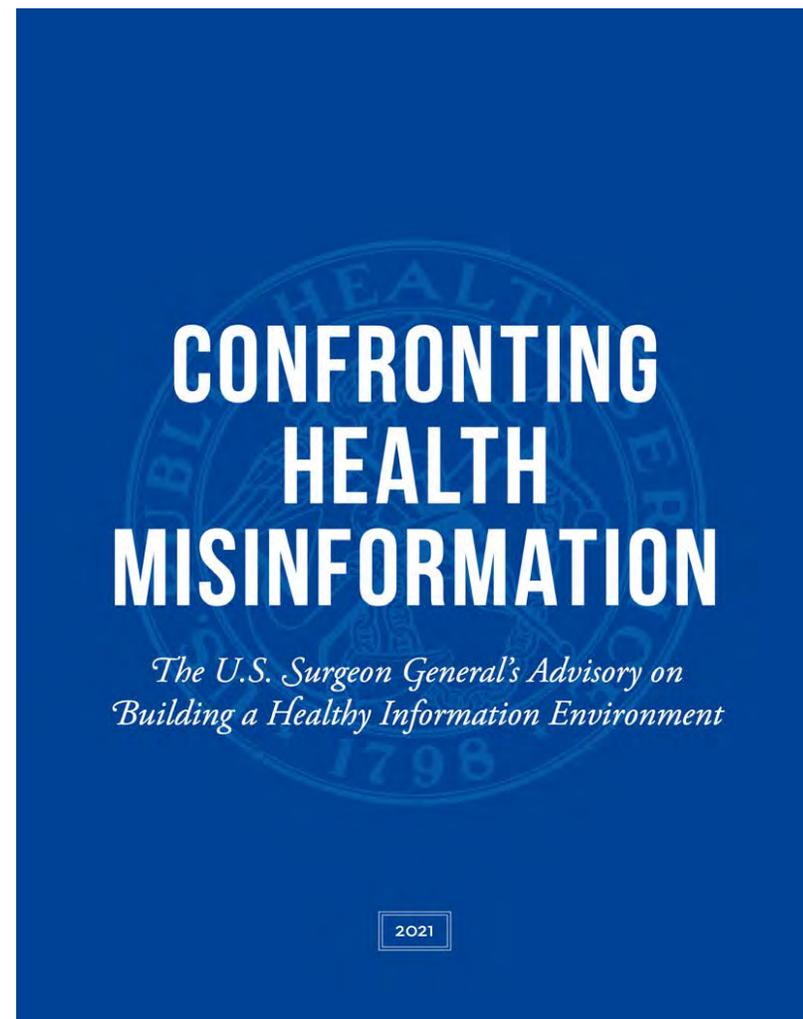
**People don't know who to trust  
anymore**

**Here's  
How We  
Fight  
Back**



# What Health Professionals & Organizations Can Do

- Proactively engage with patients and the public
- Use technology and media platforms to share evidence based information
- Partner with community groups and local organizations





Acknowledge  
our online  
world

Address  
all the noise

Provide  
quality  
information

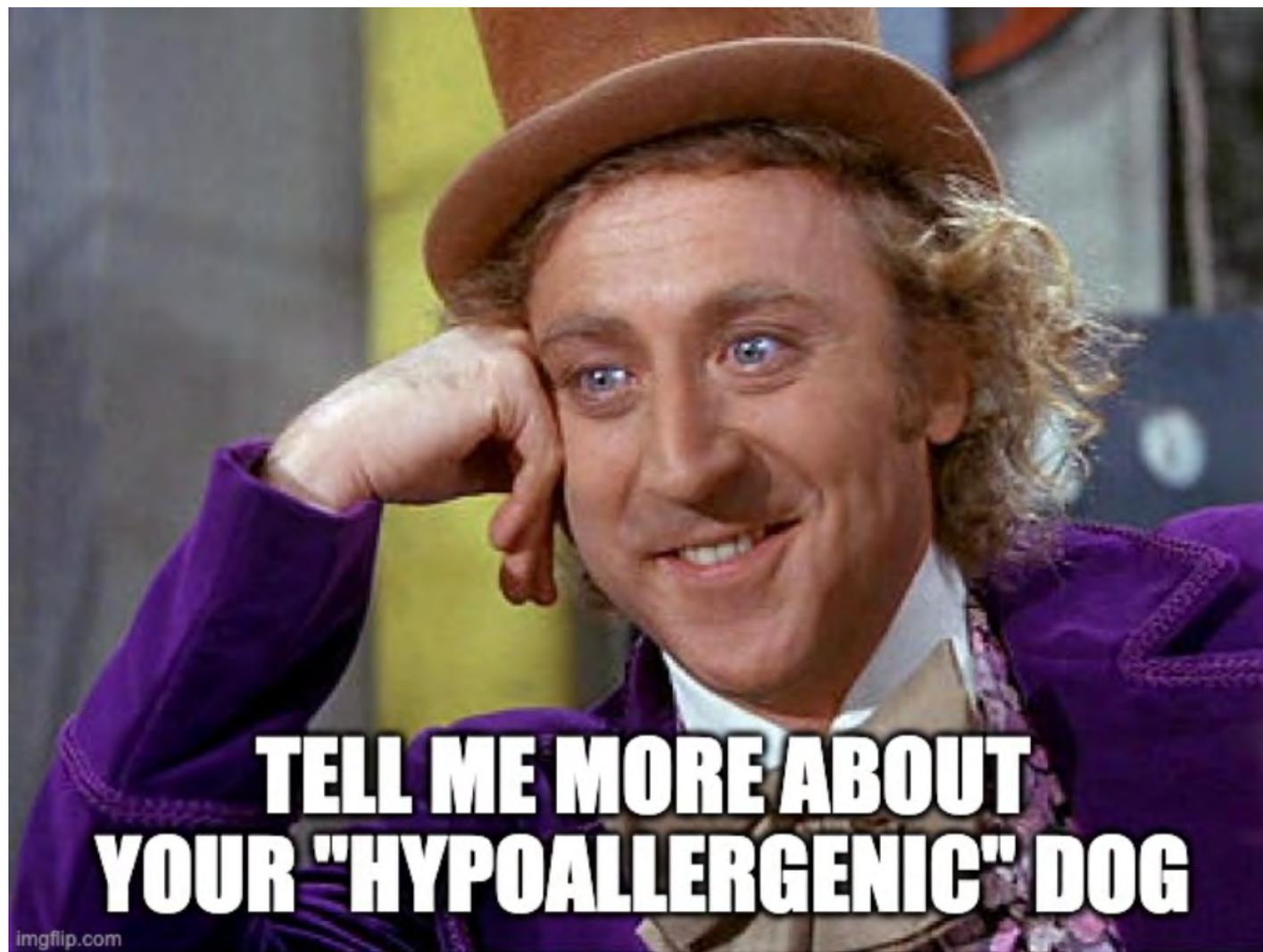
# The Number 1 Thing YOU Can Do to Help

Google

why am i

- why am i **so tired**
- why am i **always tired**
- why am i **always cold**
- why am i **dizzy**
- why am i **so gassy**
- why am i **peeing so much**
- why am i **always hungry**
- why am i **not losing weight**
- why am i **so thirsty**
- why am i **so tired all the time**

# Become an Asthma Myth Buster



# Milk, mucus and myths

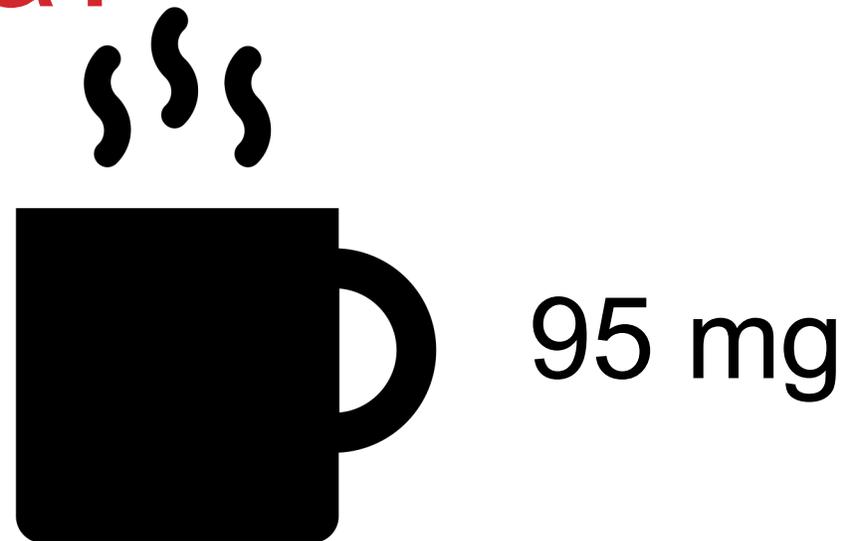
Ian M Balfour-Lynn

## CONCLUSIONS

While certainly the texture of milk can make some people feel their mucus and saliva is thicker and harder to swallow, there is no evidence (and indeed evidence to the contrary) that milk leads to excessive mucus secretion. Milk is an important source of calories, calcium and vitamins for children. The milk–mucus myth needs to be rebutted firmly by healthcare workers.

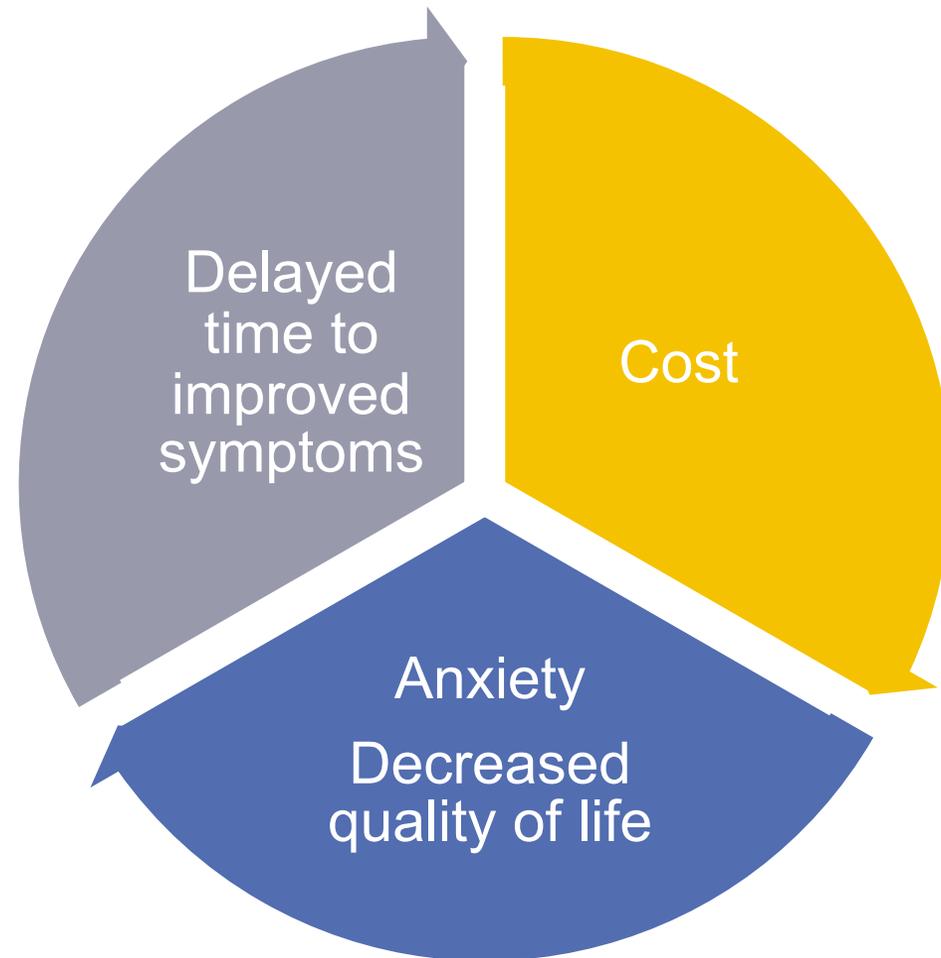
# Caffeine Treats Asthma?

- Meta analysis: 6 trials → 55 people
- 5-12% improvement in FEV<sub>1</sub> for up to 2 hours
- 5 mg/kg body weight

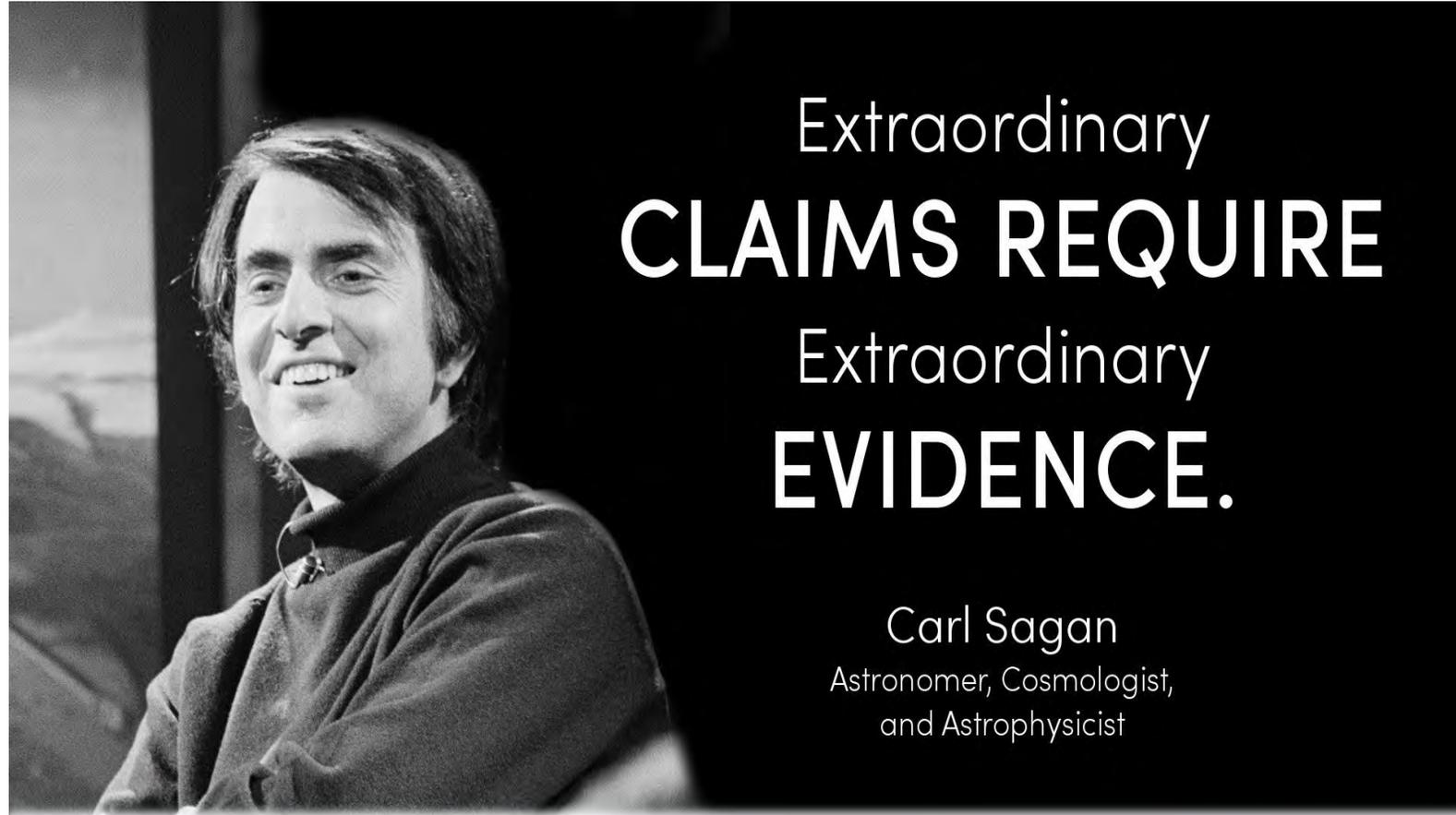


Equivalent ~4 cups of coffee

# Discuss Harmful Aspects



- Encourage questions
- Listen to replies
- Offer logical explanations
- Admit when you don't know the answer
- Make yourself available for follow up questions



# The Simplest Way to Spot Coronavirus Misinformation on Social Media

A digital literacy expert shares his method



Will Oremus [Follow](#)

Mar 4 · 8 min read ★



He sums it up with the acronym SIFT:

1. Stop.
2. Investigate the source.
3. Find better coverage.
4. Trace claims, quotes, and media to the original context.

# Shared Decision Making

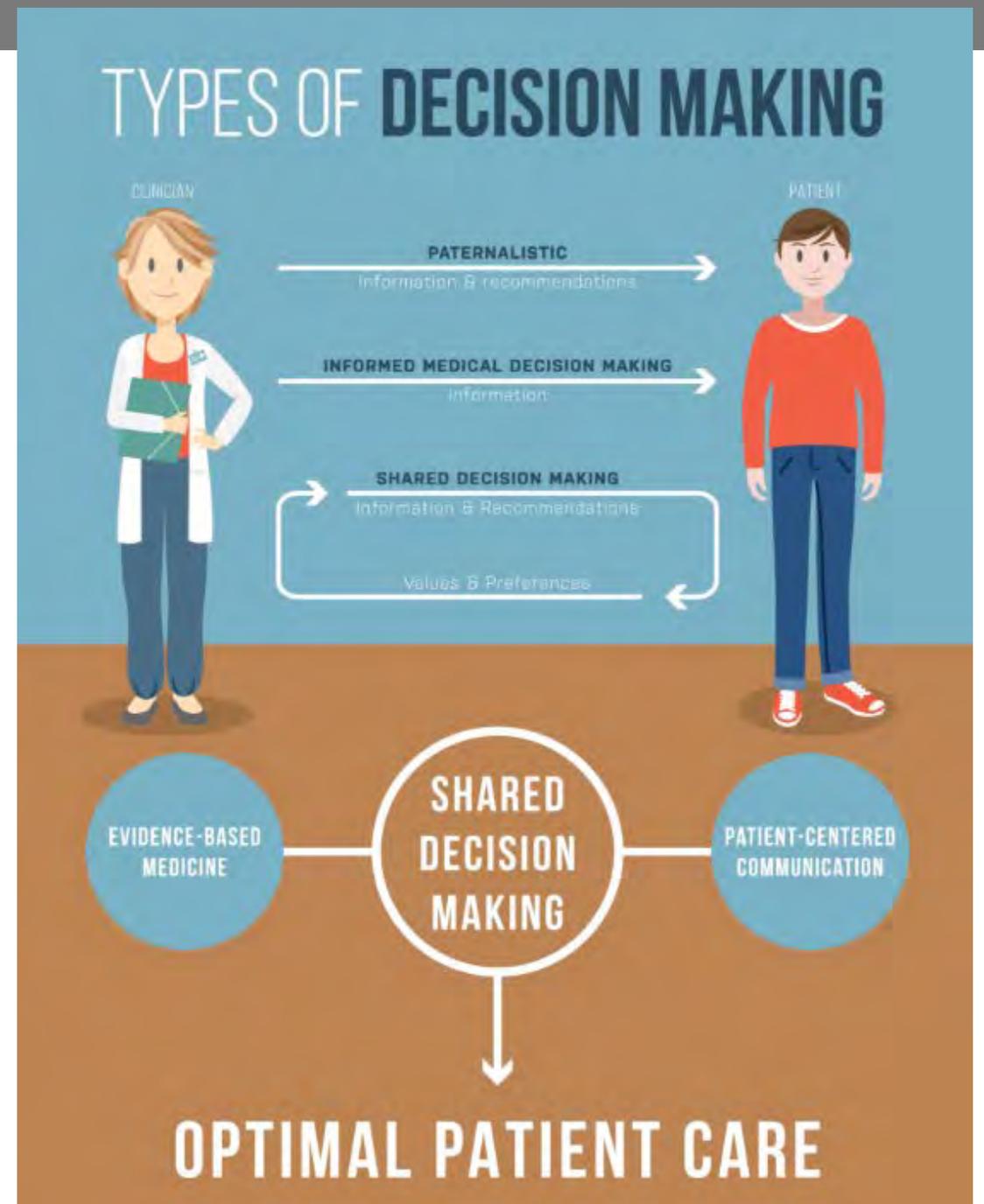
WE discuss evidence, options,  
risks

+

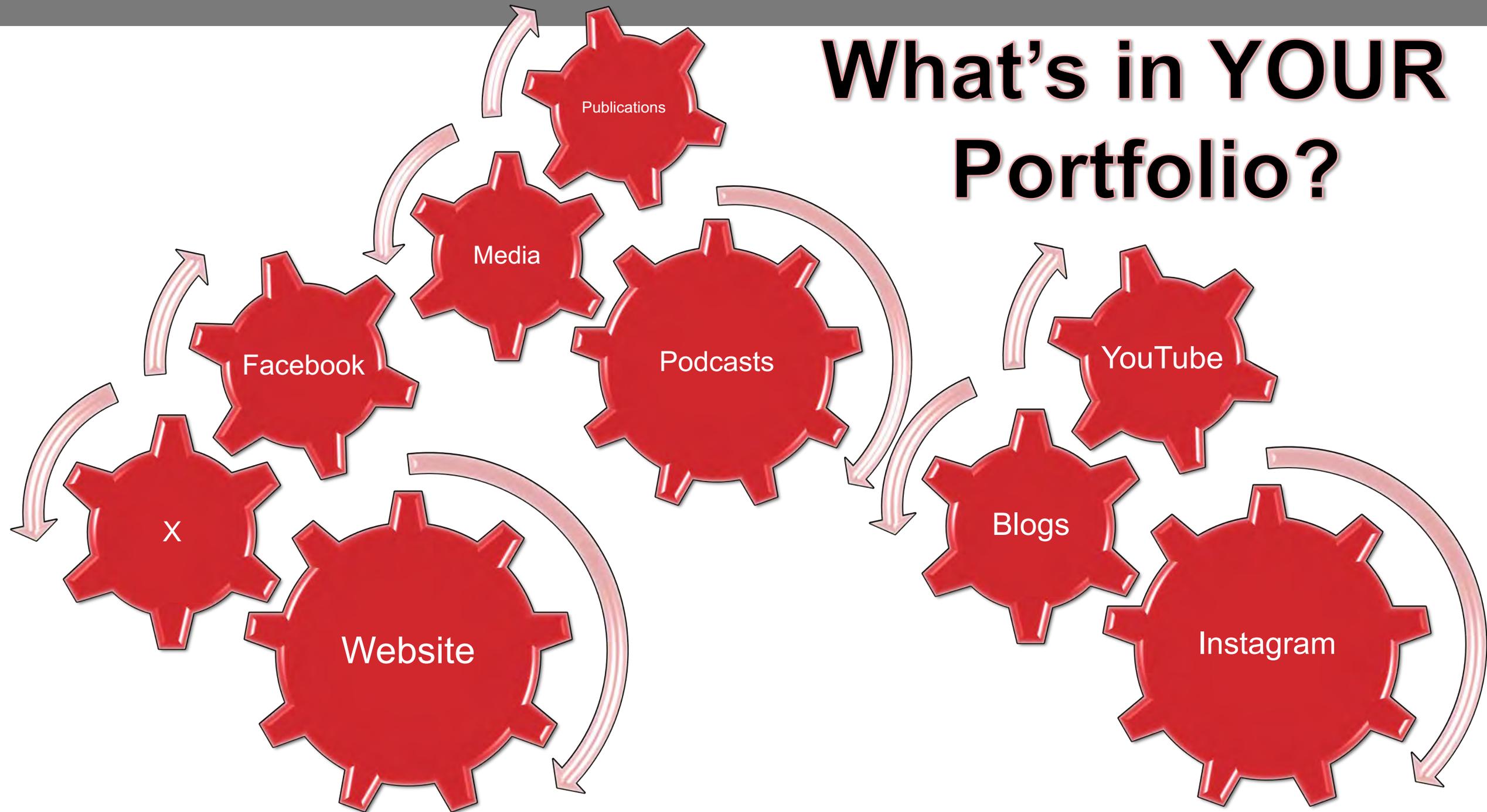
PATIENTS discuss  
preferences & values

+

WE help PATIENTS make  
decisions based upon “what  
matters most”



# What's in YOUR Portfolio?





Edit profile

Instagram Search  Log In



**allergykidsdoc** Message Follow ⋮

835 posts   20.9K followers   134 following

**Dr. Dave Stukus**  
 Pediatric #allergy specialist  
 Director of the Food Allergy Center @nationwidekids  
 Dispelling myths & misconceptions one post at a time  
[www.nationwidechildrens.org/find-a-doctor/profiles/david-r-stukus](http://www.nationwidechildrens.org/find-a-doctor/profiles/david-r-stukus)

  
Research

  
Media inte...

  
Podcasts

  
IG Live ch...

  
Allergy hu...

  
Blog posts

## Dr. Dave Stukus ✓

@AllergyKidsDoc

Professor of Pediatrics & Director, Food Allergy Center [@nationwidekids](https://twitter.com/nationwidekids) 🇺🇸

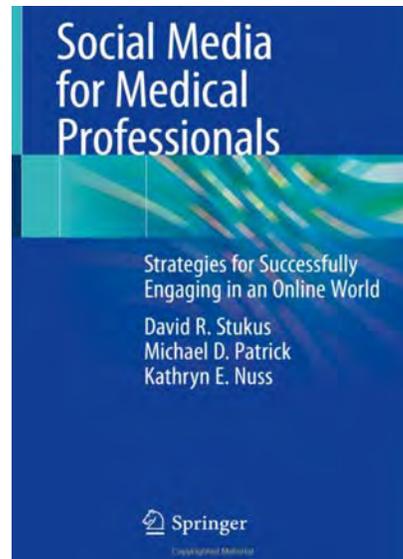
Social media editor [@aaaai\\_org](https://twitter.com/aaaai_org) /Board member [@acaai](https://twitter.com/acaai)

Science is cool. Evidence matters.

 Medical & Health  ⓘ  ⓘ Columbus, OH

[nationwidechildrens.org/david-r-stukus](https://nationwidechildrens.org/david-r-stukus)  ⓘ Joined April 2013

**584** Following   **26.8K** Followers



### 700 Children's® – A Blog by Pediatric Experts Posts by **David Stukus, MD**



Posted by: David Stukus, MD on Apr 16, 2021

# Learn, Anticipate, Address



Provide anticipatory guidance at every opportunity



Ask permission to discuss



Make it a normal part of every encounter...especially the hard topics



If we don't understand how our patients are being influenced, you won't be able to help them

# Conclusions

While Google's impact on patient care has been substantial and transformative in many ways, it is crucial to recognize that there are challenges and concerns, such as maintaining patient privacy and ensuring the accuracy and reliability of health information available online. The use of Google's tools and services should always be complemented with professional medical advice and should not be considered a replacement for healthcare consultations.

# Conclusions

It's essential for both patients and healthcare professionals to approach social media with critical thinking and verify information from reliable sources. While social media can offer valuable support and information, medical decisions should ultimately be based on evidence-based practices and advice from qualified healthcare providers.

# Thank You

