

# HealthNewsReview.org: 1<sup>st</sup> systematic analysis of health care PR

Minnesota Health Strategy and Communications Network  
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**HEALTHNEWSREVIEW**  
YOUR HEALTH NEWS WATCHDOG

**Gary Schwitzer**  
Publisher, HealthNewsReview.org  
Adjunct Associate Professor  
UMN School of Public Health  
**@garyschwitzer**  
**@HealthNewsRevu**

HealthNewsReview.org

turns

11



## **New study suggests that vitamin D decreases risk of cancer**



Increasing vitamin D levels may lower the risk for developing cancer, according to a study conducted by Creighton University with cooperation from the University of California San Diego. The results of the study were released today in the [Journal of the American Medical Association](#). The study, funded by the National Institutes of Health, is a randomized clinical trial of the effects of vitamin D supplementation on all types of cancer combined.

**News Release from  
Creighton University**

**Does it  
Or  
Doesn't it?**

## **Vitamin D, calcium supplementation among older women does not significantly reduce risk of cancer**

*Date:* March 28, 2017

*Source:* The JAMA Network Journals

*Summary:* Among healthy postmenopausal women, supplementation with vitamin D3 and calcium compared with placebo did not result in a significantly lower risk of cancer after four years, according to a study.

# Tweets 30 minutes apart

## Mindless, back-and-forth, not helpful to readers



The problem with your coffee



Hot Drinks a Probable Cancer Cause, Says WHO  
time.com

4/9/17, 6:15 AM



How coffee can help you live longer



How Coffee Can Help You Live Longer  
New findings add to growing evidence that co...  
time.com

4/9/17, 6:45 AM

# How we operate



- 11 years reviewing news stories by major media
- Eligible: include a claim about an intervention
- 3 reviewers per story - usually a journalist, an MD, another journalist
- Team of 50 part-time reviewers, only 4 FT staff
- If your work is reviewed, we email you a link
- All of this posted online for all to see
- Since Jan. 2015 we've reviewed PR news releases, too
- We apply 10 systematic criteria: the most objective process we've been able to develop



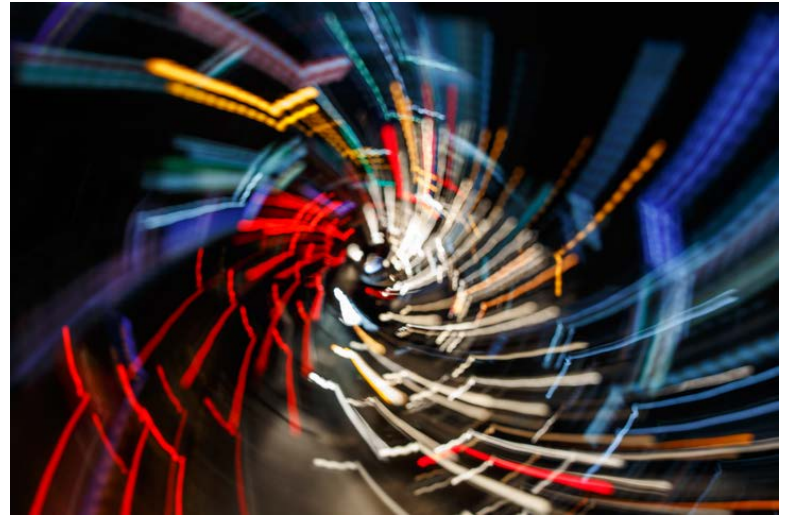


# HealthNewsReview.org

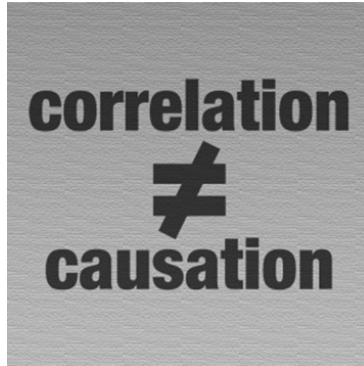
analysis of news & PR about  
health care interventions

<b>5 of our review criteria: Did the article.....</b>	<b>% unsatisfactory News stories N = 2,365</b>	<b>% unsatisfactory PR releases N = 360</b>
Adequately discuss cost?	<b>69%</b>	<b>92%</b>
Adequately assess how big (or small) are potential benefits?	<b>66%</b>	<b>71%</b>
Adequately assess scope of potential harms?	<b>63%</b>	<b>75%</b>
Evaluate quality of evidence?	<b>62%</b>	<b>70%</b>
Discuss alternative options?	<b>54%</b>	<b>58%</b>

# **Common flaws: news release spin**



- **Using cause-and-effect language to describe observational studies**
- **Exaggerating effect size – usually by using relative risk data**
- **Definitive health claims made from preliminary studies and animal research**

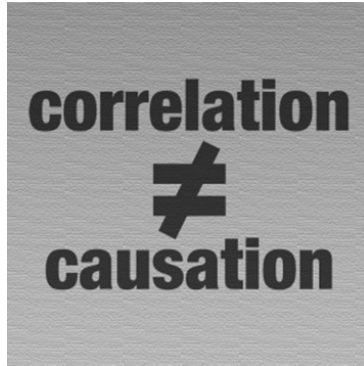


# Does the language fit the evidence?

## Language to avoid when describing observational studies

- Reduces risk
- Increases risk
- Prevents
- Cuts risk
- Lowers risk
- Improves





# Does the language fit the evidence?

## Accurate descriptive language

- “This was an observational study, not a trial.”
- “An observational study like this can’t establish cause and effect, so using terms like ‘protective effect’ is inaccurate.”
- “In this observational study some other factor might have decreased x. That doesn’t mean that the statistical link (association) isn’t real; it just means a study like this can’t prove that the y was the culprit.”<sup>2</sup>

## Press Releases

### Translating Research Into News **FREE**

Steven Woloshin, MD, MS; Lisa M. Schwartz, MD, MS

- Only 23% of press releases mentioned any study limitations.
- Only 22% of news releases mentioned industry funding.
- Nearly half relied on **relative risk** descriptions that are “prone to exaggeration.”
- Summary: “Press releases do not routinely highlight study limitations or the role of industry funding. Data are often presented using formats that may exaggerate the perceived importance of findings.”

## Exaggerations and Caveats in Press Releases and Health-Related Science News

Petroc Sumner , Solveiga Vivian-Griffiths, Jacky Boivin, Andrew Williams, Lewis Bott, Rachel Adams, Christos A. Venetis, Leanne Whelan, Bethan Hughes, Christopher D. Chambers

- 23% of news releases contained more direct or explicit advice than was found in their relevant journal articles
- Likelihood of news stories containing exaggerated advice was 2.4 times higher for studies whose news releases included exaggerated advice.
- Odds that a news story would use stronger cause and effect language than the related journal article were 11 times higher if the news release also contained exaggerated causal claims.

## Misrepresentation of Randomized Controlled Trials in Press Releases and News Coverage: A Cohort Study

Positive “spin” was identified in about half of press releases and news stories. The main factor associated with “spin” in press releases was the presence of “spin” in the journal article abstract conclusion.

In other words, a direct link from  
published study → news release → news story.

**Who thinks about the reader, the consumer,  
the patient...at the end of this food chain?**

## Research

The association between exaggeration in health related science news and academic press releases: retrospective observational study

**40% of press releases exaggerated advice**

**33% press releases exaggerated cause-and-effect claims**

**36% press releases made exaggerated leap from animal studies to humans**

**When press release had such exaggeration...**

**58% of news stories echoed the exaggeration**

**81% of news stories echoed the exaggeration**

**86% of news stories echoed the exaggeration**

**When press release did NOT have such exaggeration....**

**17% of stories did not**

**18% of stories did not**

**10% of stories did not**

# Infoxication – Polluted stream of health news & info drowning the public





How did this.....

MedChemComm



CONCISE ARTICLE

Cite this: *Med. Chem. Commun.*, 2014,  
5, 728

The synthesis and functional evaluation of a  
mitochondria-targeted hydrogen sulfide donor,  
(10-oxo-10-(4-(3-thioxo-3*H*-1,2-dithiol-5-yl)-  
phenoxy)decyl)triphenylphosphonium bromide  
(AP39)

....become this?




NEWSFEED

**Ridiculous Study of the  
Day Says Smelling Farts  
Might Prevent Cancer**

And all of this.... > 500,000 results on a  
Google search!

## Smell Of Flatulence May Reduce Risk Of Cancer, Stroke, Heart Attack And Dementia, Experts Find

The Huffington Post UK | By Rachel Moss  

Posted: 14/07/2014 10:52 BST



### Silent, not deadly; how **farts** cure diseases

The Guardian - 12 hours ago

A recent study from the University of Exeter has been reported as showing that smelling **farts** can cure **cancer**, as well as many other diseases. Although the study itself doesn't actually say this at any point, if **farts** do have healing powers it would have ...

### Smelling **farts** could be the best thing you do today

CNET - by Anthony Domanico - Jul 11, 2014

But instead of being ashamed when you **fart** in public, you should ... and flatulence could reduce the risk of **cancer**, heart attack, strokes, arthritis ...



## Concussion-Related Measures Improved in High School Football Players Who Drank New Chocolate Milk, UMD Study Shows

COLLEGE PARK, Md. — **Fifth Quarter Fresh**, a new, high-protein chocolate milk, helped high school football players improve their cognitive and motor function over the course of a season, even after experiencing concussions, a new preliminary University of Maryland study shows.

The study, funded through the **Maryland Industrial Partnerships program** and conducted by **Jae Kun Shim**, a professor of kinesiology in the **School of Public Health**, followed 474 football players from seven high schools in Western Maryland throughout the fall 2014 season.

"High school football players, regardless of concussions, who drank Fifth Quarter Fresh chocolate milk during the season, showed positive results overall," said Shim. "Athletes who drank the milk, compared to those who did not, scored higher after the season than before it started, specifically in the areas of verbal and visual memory."

Football players were tested before the season, after concussions and post-season using **Immediate Post-concussion Assessment and Cognitive Testing**, also called **ImPACT™**, a widely used computer-based evaluation for concussions. Overall, 36 variables for attention span, working memory, sustained and selective attention time, response variability, non-verbal problem solving and reaction time were measured in the study.

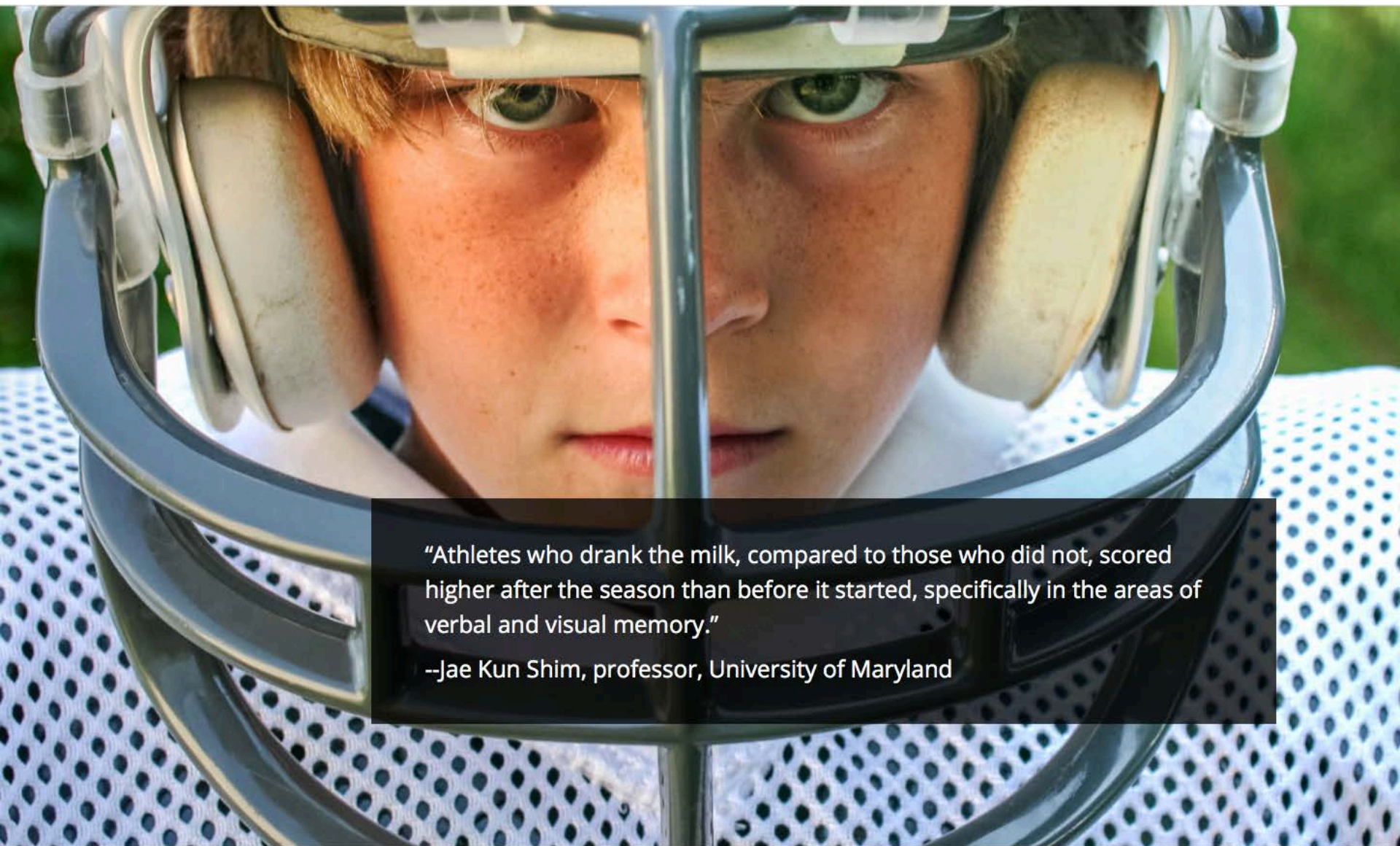


Download high-quality Fifth Quarter Fresh videos, photos and logos (including those shown below) via **Mtech's public Dropbox folder**.



Fifth Quarter Fresh bottle





"Athletes who drank the milk, compared to those who did not, scored higher after the season than before it started, specifically in the areas of verbal and visual memory."

—Jae Kun Shim, professor, University of Maryland



JANUARY 5, 2016

[READ ORIGINAL RELEASE](#)



## Release claiming chocolate milk improves concussion symptoms in student athletes is out-of-bounds

### REVIEWED BY



### RATING



### CATEGORIES

University news  
release

### TAGS

concussion, dietary  
supplements, high  
school athletes



UNIVERSITY OF  
MARYLAND

Concussion-Related Measures Improved in High School Football Players Who Drank New Chocolate Milk, UMD Study Shows

# Excerpts of our prescient review:

- “Got facts? They are almost absent from this boastful news release.”
- “Perhaps the most worrisome aspect of this case is the status of the ‘study’ it is based on, which does not appear to have been independently reviewed or published.”
- “The release paints a picture of benefits that goes far beyond any specific research results that are provided. The most troubling comment comes from a local school official who says that based on this study the school district plans to provide this commercial milk product to all athletes, because *‘There is nothing more important than protecting our student-athletes.’* “



# We asked for more details but got none

6 days later we blogged, “Why won’t the University of Maryland talk about the chocolate milk/concussion study it was so eager to promote?”



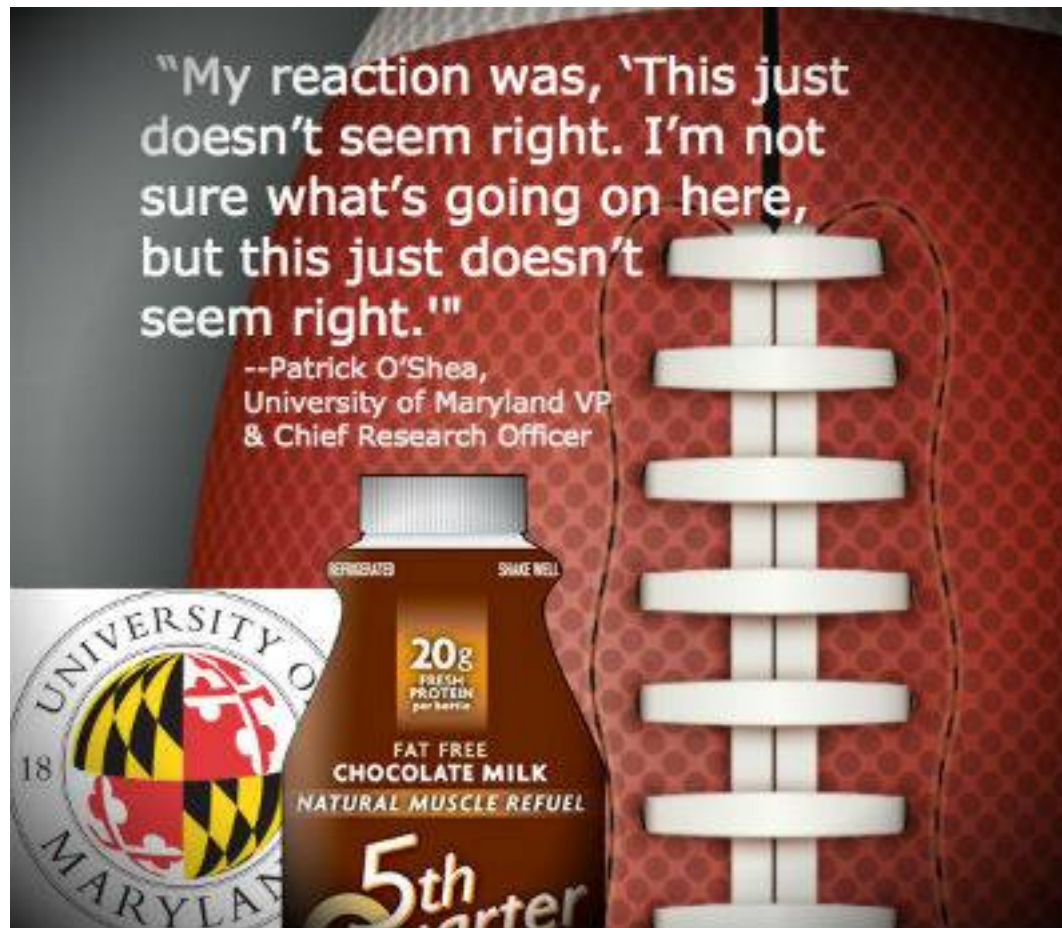
We were being stonewalled, but clearly, the University was stunned as they looked further at our questions. Remember: no one had ever systematically reviewed news releases like this.

Then nationwide news coverage followed our lead....



Clearly, the University couldn't run from this

So, just 8 days after our initial news release review, they announced an internal investigation.



# 3 months later...and after we'd written 9 articles about the PR fiasco

The University said it found:

“...a concerning lack of understanding of the basic principles of conflict of interest in research at all levels of the process. The principal investigator, as well as several others, expressed less concern for, and were perhaps less attentive to, the potential for a research conflict of interest in part because they felt that this project was in support of small business which is highly encouraged by the state and actively promoted by the university.”

The lead researcher did not declare a conflict of interest when his project received \$200,000 from the Allied Milk Foundation



“There are simply too many uncontrolled variables to produce meaningful scientific results. We found this particularly troubling because students were used as subjects. (and) There is no institutional protocol for approval of press releases and lines of authority are poorly defined.”

The report found that the researcher was given default authority over the news release , and that he disregarded generally accepted standards as to when study results should be disseminated in news releases. It recommended that in the future:

“Press releases should never include study data or conclusions, even preliminary, until they have been subject to peer review and, under most circumstances, accepted for publication in an appropriate peer-reviewed journal or book. The strictest standards for peer review should be applied to research results that are based on human subjects or animals.”

# 15 recommendations to bring University in line with accepted norms

And it's a safe bet that none of this would have come to light if our little non-profit watchdog effort hadn't been looking at health care PR news releases & hadn't stumbled onto this one.

How many other examples will we find?



# Unprecedented offer of help introduced this month



- Rather than receiving our constructive criticism **after** your work is published, we'll review a draft **prior** to publication.
- Send us a draft.
- We'll ask 3 reviewers to analyze/comment.
- We'll send comments back ASAP.
- No cost. No obligation to follow our advice.
- Just an attempt to help improve the final product.

# Our slow rollout of this offer

- Wrote to 250 whose work we've reviewed
- Gave talk on this at Association of American Medical Colleges in Puerto Rico this month
- 4 individuals inquired
  - Freelancer works with 3 European medical groups
  - University staff writer
  - Owner of a PR firm
  - Independent communications consultant

# Two releases reviewed so far

## Feedback:

1. “We've reworked the release incorporating a number of your suggestions.”
2. “It is extremely helpful to get a view from ‘outside the bubble.’ There are often things which I miss, or which I hadn't thought of.”



# Toolkit primers on our site

7 words you shouldn't use in medical news	Intention-to-treat analysis
Absolute vs. relative risk	NNT or number needed to treat
Animal & lab studies	Non-inferiority trials
Biohyype bibliography	Limits of observational studies
Commercialism	Odds ratios
Careful with composite endpoints	Off-label drug marketing
Resources for reporting on costs of interventions	Caveats about news from scientific meetings
Phases of drug trials	Single-source stories
Medical device approval	Statistical significance
FDA approval not guaranteed	Surrogate markers may not tell whole story



## Another new feature – telling patient stories

- Man with glioblastoma thrilled by exciting treatment news, hopes then dashed as he got actual details
- Founder of a rare disease advocacy group on harm caused by misleading journal article title
- Migraine media mess, with patient advocate
- Breast cancer blogger criticizes celebrity breast cancer news
- Young breast cancer patient: what it's like making decisions while conflicting news stories swirl about

**“The trouble with people  
is not that they don't know,  
but that they know so much  
that ain't so. ...**



**I honestly believe it is better  
to know nothing than to  
know what ain't so.”**

**JOSH BILLINGS**

**(PEN NAME OF HUMORIST**

**HENRY WHEELER SHAW, 1818 – 1885)**





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