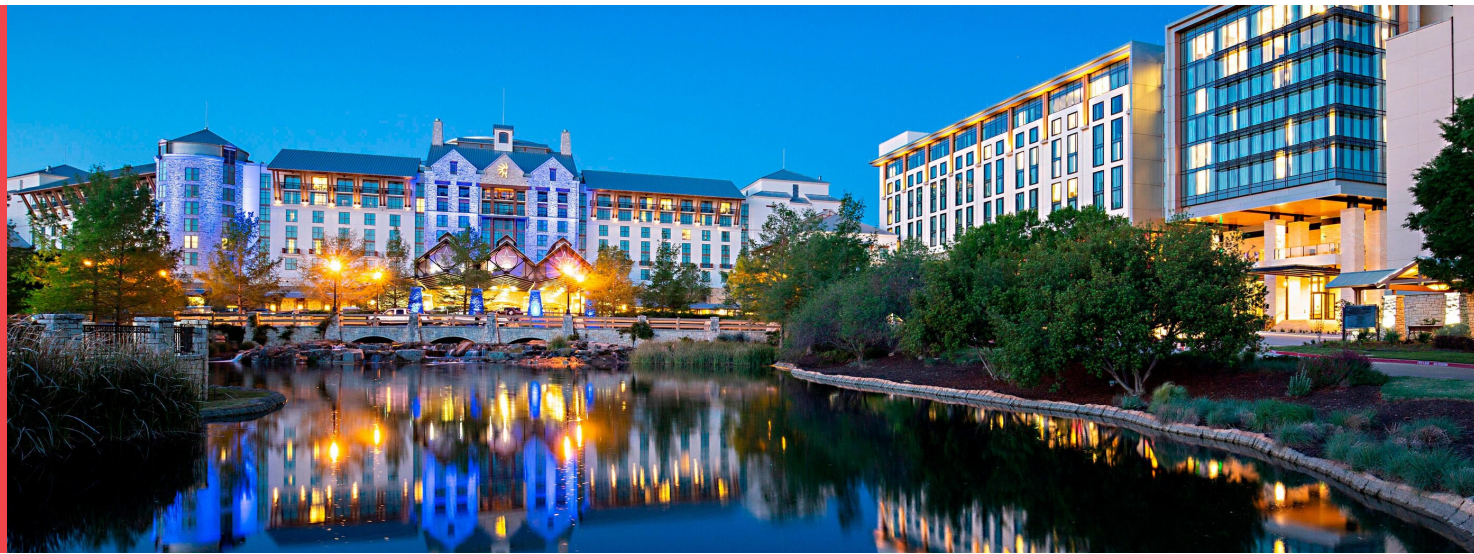


**National
Health Care
Benefits Summit**

JANUARY 9 & 10 2020

Presented by:



"Quizzify"

So You Think You Know Healthcare?

Al Lewis, CEO, Quizzify, Inc.

Quizzify



WISER EMPLOYEES MAKE HEALTHIER DECISIONS

Entertaining, educational quizzes to create a health-literate workforce.

Intro, Rules and Prizes



What's about to happen?

- You are about to play a “live” version of Quizzify, which teaches employees both how to make healthier decisions, and also that “just because it’s healthcare doesn’t mean it’s good for you.”
- We will start out with a little primer on the importance of health literacy.
- Then there is a 9-question quiz.
- The first 8 questions will be what employees need to know, plus one that you need to know.

Q The Health Literacy Imperative



"Too few actually understand medical information well enough to improve their health. A landmark 2006 report notes that only about

12%

of US adults had a proficient state of health literacy."



The Economics of Health Literacy

Three-year study done by the Veterans Administration

Per Patient Medical and Pharmacy Cost for Different Levels of Health Literacy



PHARMACY AND MEDICAL COST

■ Adequate Health Literacy ■ Marginal Health Literacy ■ Inadequate Health Literacy

Quizzify



WISER EMPLOYEES MAKE HEALTHIER DECISIONS

Entertaining, educational quizzes to create a health-literate workforce.



HARVARD
MEDICAL SCHOOL

Quizzify

WISER EMPLOYEES MAKE HEALTHIER DECISIONS

Entertaining, educational quizzes to create a health-literate workforce.



HARVARD
MEDICAL SCHOOL



Q Rule #1



Q Rule #2: Cheaters will lose lavatory privileges



Q

Rule #3: Food thrown at emcee may not contain added sugar



Q Summary Housekeeping details



- Your team (you + neighbors) will have about 30-45 seconds for each answer (depending on the question)
- I will then announce the answers.
- You track your score and then at the end we will add up the scores to see who won and award the prizes – (up to) eight \$25 gift cards for the winning team...
- Plus one \$50 for the closest answer on the bonus question, which is on your answer sheet.



Now... Question #1

The most popular over-the-counter drug is heartburn medication. Which is true about regular long-term daily use of these drugs (Prilosec, Prevacid, Nexium)?

A

You should take them on a daily basis for them to continue working

B

Long-term use can lead to flatulence

C

There are suspected long-term adverse effects not listed on the label, like heart attacks, kidney problems and fractures

D

All of the above



Question #1... which is true?

The most popular over-the-counter drug is heartburn medication. Which is true about regular long-term daily use of these drugs (Prilosec, Prevacid, Nexium)?

A

You should take them on a daily basis for them to continue working

B

Long-term use can lead to flatulence

C

There are suspected long-term adverse effects not listed on the label, like heart attacks, kidney problems and fractures

D

All of the above



Q Prilosec, Prevacid, Nexium may increase many risks when used long-term

Medscape Monday, August 28, 2017

[NEWS & PERSPECTIVE](#) [DRUGS & DISEASES](#) [CME & EDUCATION](#) [ACADEMY](#) [VIDEO](#)

News & Perspective

PPIs May Increase Risk for Chronic, Silent Kidney Damage

Nicola M. Parry, DVM
February 23, 2017

What's wrong with
PPI antacids?



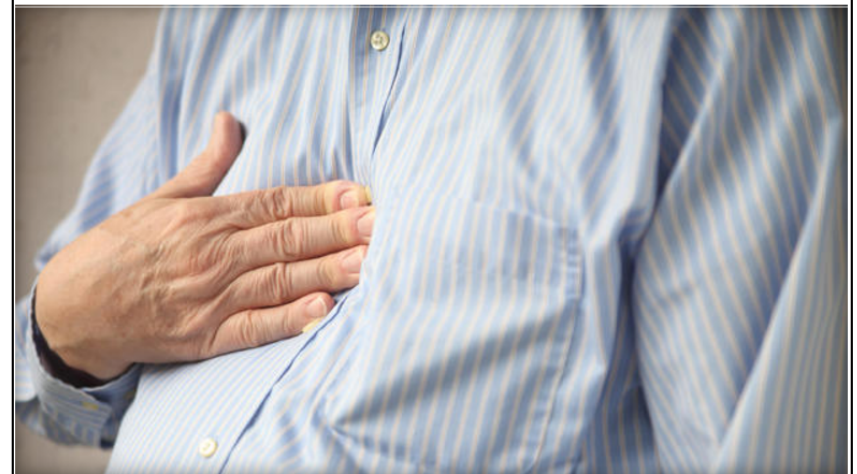
PPI antacids increase fracture risk

January 27, 2017 / in Bone Health Basics / by Dr. Susan E. Brown



Are the medications you're taking for heartburn and acid reflux increasing your fracture risk?

Some heartburn drugs linked with higher risk of death



Proton pump inhibitors, used by millions to quell stomach acid, are associated with a higher risk of death, one observational study suggests. / **GETTY/ISTOCKPHOTO**

Q Google on “risks of proton pump inhibitors”

Proton Pump Inhibitors: Considerations With Long-Term Use

<https://www.uspharmacist.com/.../proton-pump-inhibitors-considerations-with-longter...> ▼

Jul 19, 2017 - Symptoms include muscle weakness and cramps, tetany, convulsions, arrhythmias, and hypotension. Patients may also present with secondary hypocalcemia and hypokalemia. Since 2006 there have been fewer than 30 cases reported; however, **PPI** users appear to have a 40% higher **risk** of hypomagnesemia.

Proton Pump Inhibitors: Review of Emerging Concerns - Mayo Clinic ...

[https://www.mayoclinicproceedings.org/article/S0025-6196\(17\)30841-8/fulltext](https://www.mayoclinicproceedings.org/article/S0025-6196(17)30841-8/fulltext)

by AK Nehra - 2018 - Cited by 22 - Related articles

Although PPIs have had an encouraging safety profile, recent studies regarding the long-term use of PPI **medications** have noted potential adverse effects, including risk of fractures, **pneumonia**, Clostridium difficile **diarrhea**, hypomagnesemia, vitamin B₁₂ deficiency, chronic **kidney disease**, and **dementia**.

Research Evaluates Possible Link to PPI Risks - WebMD

<https://www.webmd.com > Heartburn/GERD > News> ▼

Jun 8, 2016 - Research Evaluates Possible Link to PPI Risks. June 8, 2016 – Recent research has tied certain kinds of acid-blocking **heartburn** drugs called proton pump inhibitors, or PPIs, to a host of scary **health problems**, including higher risks for **dementia**, **kidney disease**, and **heart attacks**.

Eight More Reasons to Avoid Proton Pump Inhibitors | Kresser Institute

<https://kresserinstitute.com > ... > Eight More Reasons to Avoid Proton Pump Inhibitors> ▼

Nov 8, 2017 - **Proton pump inhibitors** are routinely used to treat acid reflux, peptic ulcers, and ... They concluded that **PPI** use increased the **risk** of SIBO. Now ...

Q Why is this an important thing for employees to know?

- You are throwing your money away on prescription-strength heartburn pills (which in some cases cost employees less than the OTC...at your expense)
- Employees don't read the labels
- Employees are unaware of the risks and no one is telling them
- Most of these prescriptions get renewed
- Many employees switching from Zantac

Q *(2) How does the radiation in a CT scan compare to the radiation in an x-ray?*

A

> 100 times as much

B

5 to 50 times as much

C

About the same

D

None, which is why doctors recommend them over X-rays



(2) How does the radiation in a CT scan compare to the radiation in an x-ray?

A

> 100 times as much

B

5 to 50 times as much

C

About the same

D

None, which is why doctors recommend them over X-rays



CT Scans have hundreds of times more radiation than x-rays



Heavy Use Of CT Scans Raises Concerns About Patients' Exposure To Radiation

By Sandra G. Boodman | January 6, 2016

Q Exposure is worst for children



Heavy Use Of CT Scans Raises Concerns About Patients' Exposure To Radiation

By Sandra G. Boodman | January 6, 2016



TREATMENTS

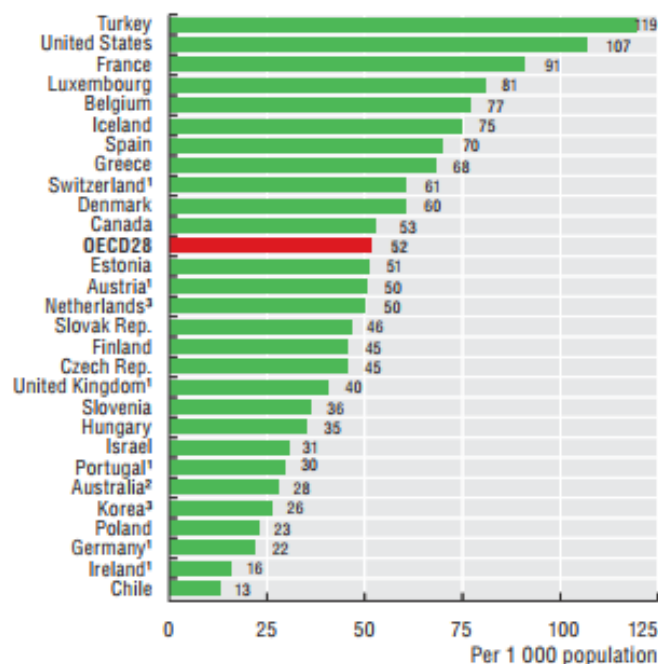
How CT Scans Have Raised Kids' Risk For Future Cancer

June 11, 2013 · 11:34 AM ET

Q The only way to stop overuse of scans is through education on the harms and risks

Data from OECDiLibrary: Health at a Glance 2015

6.5. MRI exams, 2013 (or nearest year)



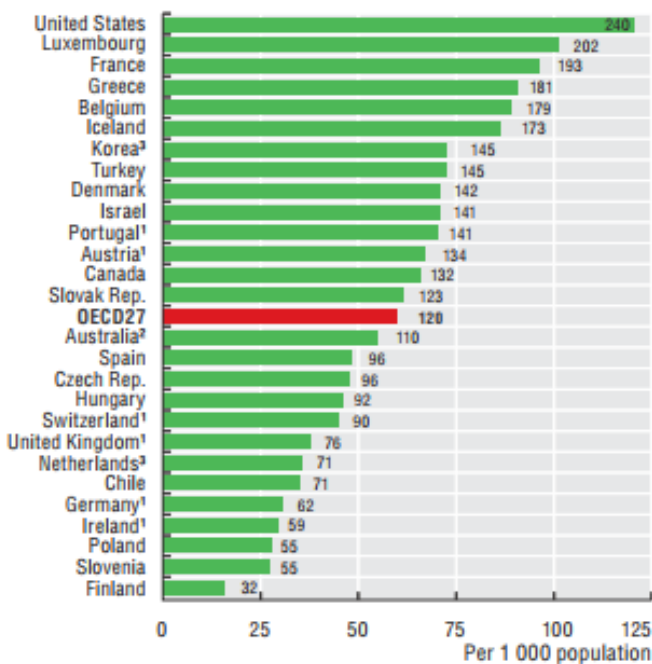
1. Exams outside hospital not included (in Ireland, exams in private hospital also not included).
2. Exams on public patients not included.
3. Exams privately-funded not included.

Source: OECD Health Statistics 2015, <http://dx.doi.org/10.1787/health-data-en>.

StatLink <http://dx.doi.org/10.1787/888933280972>

Information on data for Israel: <http://oe.cd/israel-disclaimer>

6.6. CT exams, 2013 (or nearest year)



1. Exams outside hospital not included (in Ireland, exams in private hospital also not included).
2. Exams on public patients not included.
3. Exams privately-funded not included.

Source: OECD Health Statistics 2015, <http://dx.doi.org/10.1787/health-data-en>.

StatLink <http://dx.doi.org/10.1787/888933280972>

Q Overtreatment and Unnecessary Medical Procedures - **25-30% of healthcare costs**



*"Virtually every family in the country has been subject to over testing and overtreatment in one form or another. The costs take thousands out of every paycheck each year... Millions are receiving drugs, operations and scans that aren't going to make them better... **and often cause harm.**"*

Excerpt from Dr. Gawande's New Yorker article, "[Overkill](#)"

<https://www.consumerreports.org/health/medical-screening-tests-you-do-and-dont-need/>

Q Why is this question important?

- It's important to teach employees to get expensive scans and procedures from lower cost venues (as many of you do)
- But maybe half of these things aren't needed in the first place?
- *"Nothing is more wasteful than doing something efficiently that need not have been done at all."* – Peter Drucker



- Best solution is to do both: combine education
- on appropriateness with education on venue!





(3) Which popular “milk” is best for reducing diabetes risk?

A

Low-fat or skim

B

Whole

C

Almond

D

Soy



(3) Which popular “milk” is best for reducing diabetes risk?

In milk, whole is the new skim

A

Lowfat or Skim

B

Whole

C

Almond

D

Soy

Q In milk, whole is the new skim

CBS NEWS | May 19, 2017, 3:05 PM

Full-fat dairy products may offer surprising health benefits

How
Skim
Milk
Makes
You



F
A
T

TIME

Skim Milk Is Healthier Than Whole Milk, Right? Maybe Not

Soy Milk Advantages and Disadvantages

by SYLVIE TREMBLAY, MSC | Last Updated: Oct 03, 2017

Q And as for (popular, sweetened) almond milk...

CBS NEWS / May 19, 2017, 3:05 PM

Full-fat dairy products may offer surprising health benefits

TIME

Skim Milk Is Healthier Than Whole Milk, Right? Maybe Not

How
Skim
Milk
Makes
You



**F
A
T**

HEALTH

Almond Milk Comes Dead Last in New Ranking of Milky Fluids

Lay Off the Almond Milk, You Ignorant Hipsters



CBS NEWS / May 19, 2017, 3:05 PM

Full-fat dairy products may offer surprising health benefits

How
Skim
Milk
Makes
You



F
A
T

TIME

Skim Milk Is Healthier Than Whole Milk, Right? Maybe Not

Lay Off the Almond Milk, You Ignorant Hipsters

HEALTH

Almond Milk Comes Dead Last in New Ranking of Milky Fluids

Q Why is this an important thing for employees to know?

- It is much more effective to help employees who want to do the right thing but don't know how than to convince employees to do the right thing
- Research changes and it is important to stay up to date
- These little dietary changes add up to real risk reduction

Q Wellness vendors still advise the reverse

How can you make healthier choices?

Use the following chart as a guide.

Options for replacing unhealthy fats

Food group	Limit foods that are high in unhealthy fats	Make healthier choices
Meat, poultry, and fish	Regular ground beef, fatty or highly marbled cuts, spare ribs, organ meat, poultry with skin, fried chicken, fried fish, fried shellfish, lunch meat, bologna, salami, sausage, hot dogs	Extra-lean ground beef (97% lean), ground turkey breast (without skin added), meats with fat trimmed off before cooking, skinless chicken, low-fat or fat-free lunch meats, baked fish
Dairy products	Whole milk and 2% milk; whole-milk yogurt, most cheeses, and cream cheese; whole-milk cottage cheese, sour cream, and ice cream; cream; half-and-half; whipping cream; nondairy creamer; whipped topping	Low-fat (1%) or fat-free milk and cheeses, low-fat or nonfat yogurt



(4) What should you do if your kid has a cavity in a baby tooth?

A

Get it filled even though it will be very traumatic

B

Ask the dentist to paint “magic juice” (SDF) on it

C

Use general anesthesia so your child is unaware of what’s happening

D

Wait for the baby tooth to fall out



(4) What should you do if your kid has a cavity in a baby tooth?

A

Get it filled even though it will be very traumatic

B

Ask the dentist to paint "magic juice" (SDF) on it

C

Use general anesthesia so your child is unaware of what's happening

D

Wait for the baby tooth to fall out



A Cavity-Fighting Liquid Lets Kids Avoid Dentists' Drills

By CATHERINE SAINT LOUIS JULY 11, 2016



Q Silver Diamine Fluoride: You need to ask. Dentists often won't offer.



Painless Dentistry Is Here! But It Turns Your Teeth Black.

KEVIN DRUM JUL. 15, 2016 4:21 PM



Q Filling kids' cavities is throwing money away

- Group in this room pays for thousands of kids' cavities
- Two-thirds of them can be treated this way, saving a great deal of money and anxiety
- Adults can often be treated with it too (like I just did) despite dentist resistance



Q (5) Go to your handout. Count the number of sugars (technically “added sweeteners”) on the ingredients label





Here is the ingredients label

How many sugars ("added sweeteners") are on this ingredients label?



INGREDIENTS:

QUINOA, YOGURT FLAVORED COATING (SUGAR, PALMKERNEL AND PALM OIL, WHEY PROTEIN CONCENTRATE, DRIED NONFAT YOGURT - HEAT TREATED AFTER CULTURING [CULTURED NONFAT MILK], SOY LECITHIN, NATURAL FLAVOR, ARTIFICIAL COLOR, CITRIC ACID, SALT), GLUCOSE, GRANOLA (WHOLE GRAIN ROLLED OATS, WHOLEGRAIN ROLLED WHEAT, BROWN SUGAR, SUNFLOWER OIL, DRIED UNSWEETENED COCONUT, HONEY, SODIUM BICARBONATE, NATURAL FLAVOR, WHEY AND WHEY PROTEIN CONCENTRATE),

BROWN RICE CRISP (WHOLE GRAIN BROWN RICE FLOUR, SUGAR, MALTED BARLEY FLOUR, SALT), CARAMEL FLAVORED COATING (GLUCOSE, SUGAR, PALMOIL, NONFAT MILK, GLYCERIN, BUTTER (CREAM, SALT), MODIFIED CORNSTARCH, WHEY, SALT, MONO AND DIGLYCERIDES, NATURAL AND ARTIFICIAL FLAVOR, SOY LECITHIN), INVERT SUGAR, CORN SYRUP SOLIDS, ALMONDS, GLYCERIN, PEANUTS, DRIED SWEETENED CRANBERRY PIECES (SUGAR, DRIED CRANBERRIES, CITRIC ACID, ELDERBERRY JUICE CONCENTRATE [COLOR], SUNFLOWER OIL), RAISINS, SUNFLOWER KERNELS (SUNFLOWER SEED, SUNFLOWER OIL AND/OR COTTONSEED OIL), VEGETABLE SHORTENING (PALM KERNEL OIL, PALM OIL, SORBITAN TRISTEARATE, TBHQ [A PRESERVATIVE], CITRIC ACID), SALT, TOCOPHEROLS (PRESERVATIVE).

Q (5) The number of sugars in that granola bar is: *TEN*



INGREDIENTS:

QUINOA, YOGURT FLAVORED COATING (SUGAR, PALMKERNEL AND PALM OIL, WHEY PROTEIN CONCENTRATE, DRIED NONFAT YOGURT - HEAT TREATED AFTER CULTURING [CULTURED NONFAT MILK], SOY LECITHIN, NATURAL FLAVOR, ARTIFICIAL COLOR, CITRIC ACID, SALT), GLUCOSE, GRANOLA (WHOLE GRAIN ROLLED OATS, WHOLEGRAIN ROLLED WHEAT, BROWN SUGAR, SUNFLOWER OIL, DRIED UNSWEETENED COCONUT, HONEY, SODIUM BICARBONATE, NATURAL FLAVOR, WHEY AND WHEY PROTEIN CONCENTRATE),

BROWN RICE CRISP (WHOLE GRAIN BROWN RICE FLOUR, SUGAR, MALTED BARLEY FLOUR, SALT), CARAMEL FLAVORED COATING (GLUCOSE, SUGAR, PALMOIL, NONFAT MILK, GLYCERIN, BUTTER (CREAM, SALT), MODIFIED CORNSTARCH, WHEY, SALT, MONO AND DIGLYCERIDES, NATURAL AND ARTIFICIAL FLAVOR, SOY LECITHIN), INVERT SUGAR, CORN SYRUP SOLIDS, ALMONDS, GLYCERIN, PEANUTS, DRIED SWEETENED CRANBERRY PIECES (SUGAR, DRIED CRANBERRIES, CITRIC ACID, ELDERBERRY JUICE CONCENTRATE [COLOR], SUNFLOWER OIL), RAISINS, SUNFLOWER KERNELS (SUNFLOWER SEED, SUNFLOWER OIL AND/OR COTTONSEED OIL), VEGETABLE SHORTENING (PALM KERNEL OIL, PALM OIL, SORBITAN TRISTEARATE, TBHQ [A PRESERVATIVE], CITRIC ACID), SALT, TOCOPHEROLS (PRESERVATIVE).



A few you might think are sugars...

- Elderberry juice concentrate is for color. Grape juice and apple juice concentrates are sugar
- Malted barley *extract* is sugar. Malted barley flour is not.
- Whey protein itself is 1% sugar – this would not count as an “added sweetener”
- There are 61 synonyms for sugar in food ingredients labels.

Q Scoring for #5

- 10: 3 *points*
- 7 to 9 or more than 10: 2 *points*
- 4 to 6: 1 *point*

Q (6) What percent of spine surgeons were reported to admit they would not get a spinal fusion?



Q (6) What percent of spine surgeons are reported to say they would not get a spinal fusion?

• 99%

QUARTZ

DON'T BUY IT

The \$100 billion per year back pain industry is mostly a hoax



Q Scoring for #6

- 99%: 3 points
- 80% to 98% or 100%: 2 points
- 60% to 79%: 1 point



Other back surgery statistics

Within five years...

- 10% needed another operation

Within ten years...

- Only 41% reported "good" or "excellent" results
- 51% showed deterioration in adjacent spinal segments

Within fifteen years...

- 37% needed another operation

Q Other back surgery statistics

Within five years...

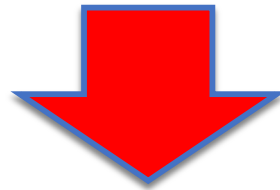
- 10% needed another operation

Within ten years...

- Only 41% reported "good" or "excellent" results
- 51% showed deterioration in adjacent spinal segments

Within fifteen years...

- 37% needed another operation



Educate employees that spinal fusions should generally be avoided: "95% of back pain resolves...but everyone thinks they are in the other 5%."

Q Spinal fusions, though uncommon, are major cost drivers



1.	470	Major joint replacement or reattachment of lower extremity w/o mcc
2.	775	Vaginal delivery w/o complicating diagnoses
3.	460	Spinal fusion except cervical w/o mcc
4.	3	Ecmo or trach w mv 96+ hrs or pdx exc face, mouth & neck w maj O.R.
5.	790	Extreme immaturity or respiratory distress syndrome, neonate
6.	766	Cesarean section w/o cc/mcc
7.	247	Perc cardiovasc proc w drug-eluting stent w/o mcc
8.	885	Psychoses
9.	765	Cesarean section w cc/mcc
10.	871	Septicemia or severe sepsis w/o mv 96+ hours w mcc
11.	795	Normal newborn
12.	392	Esophagitis, gastroent & misc digest disorders w/o mcc
13.	330	Major small & large bowel procedures w cc
14.	743	Uterine & adnexa proc for non-malignancy w/o cc/mcc
15.	621	O.R. procedures for obesity w/o cc/mcc
16.	473	Cervical spinal fusion w/o cc/mcc
17.	853	Infectious & parasitic diseases w O.R. procedure w mcc
18.	945	Rehabilitation w cc/mcc
19.	329	Major small & large bowel procedures w mcc
20.	791	Prematurity w major problems
21.	4	Trach w mv 96+ hrs or pdx exc face, mouth & neck w/o maj O.R.
22.	774	Vaginal delivery w complicating diagnoses
23.	25	Craniotomy & endovascular intracranial procedures w mcc
24.	793	Full term neonate w major problems
25.	234	Coronary bypass w cardiac cath w/o mcc



Q (7) Nightly use of Benadryl or drugs containing Benadryl (diphenhydramine) increases your risk of:

A

Hydromalasia

B

Dementia

C

Heart disease

D

Baldness

Q (7) Nightly use of Benadryl or drugs containing Benadryl (diphenhydramine) increases your risk of:

A

Hydromalasia

B

Dementia

C

Heart disease

D

Baldness

Q (7) Nightly use of Benadryl is (strongly) linked to risk of dementia.

- OTC sleep aids (which always feature cutesy labels) are widely mis-assumed to be safe for long-term use.
- As with heartburn pills, employees are unaware of the risks--and your wellness vendor isn't telling them.



Harvard Health Publishing
HARVARD MEDICAL SCHOOL
Trusted advice for a healthier life

[Pay My Bill](#)

HEART HEALTH	MIND & MOOD	PAIN	STAYING HEALTHY	CANCER
--------------	-------------	------	-----------------	--------

[Home](#) » [Harvard Health Blog](#) » Common anticholinergic drugs like Benadryl linked to increased dementia risk - Harvard Health Blog

Common anticholinergic drugs like Benadryl linked to increased dementia risk



(8) How many OTC sleep aids contain Benadryl (diphenhydramine)?

The answer is...

Q

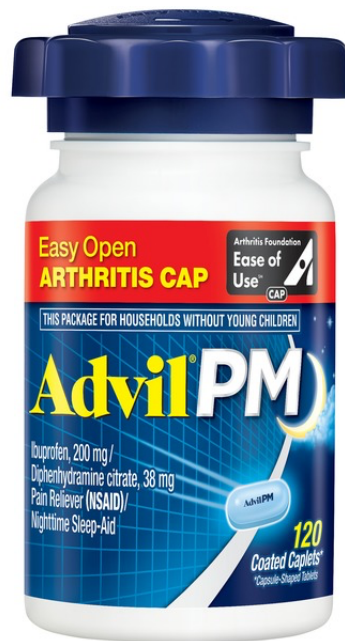
(8) How many OTC sleep aids contain Benadryl (diphenhydramine)?

The answer is...

115

Q Scoring for Benadryl (#8)

- 100 to 150
- 50 to 99 or >150
- 25 to 49
- 3 points
- 2 points
- 1 point





Raise your hand if you think your employer
about these risks



- Those were 8 topics covering risks that many if not most employees have no clue about, but can change behavior with relative ease
- And therein lies the difference between employee health education and old-fashioned wellness...





And therein lies the difference between employee health education and wellness

What is required to improve employee health?

Category	Proportion that is knowledge-based	Proportion that requires willpower, self-discipline, difficult behavior change
Wellness	1%	99%
Employee health education	99%	1%

Q And therein lies the difference between employee health education and wellness

Also, employees lie and cheat in wellness programs

Category	Proportion that is knowledge-based	Proportion that creates potential conflict & uncomfortable situations
Wellness	1%	99%
Employee health education	100%	1%





The final question, #9, is for YOU (not employees)

More points, the closer you get

What is the total number of annual hospital admissions for diabetes as the primary reason for admission, in the 160,000,000 commercially insured <65 population? (More points for more accurate guesstimates.)



Make sure to get your individual answers in to compete for the \$50, to mark@quizzify.com.

Q (9) What is the total number of diabetes hospital admissions in the privately insured population?

More than 160,000,000 Americans are covered by private insurance, and here is the number (screenshot of government data) of diabetes admissions:

Medicare	221,470
Medicaid	137,360
Private Insurance	126,710

Q (9) What is the total number of diabetes hospital admissions in the privately insured population?

More than 160,000,000 Americans are covered by private insurance, and here is the number

Medicare	221,470
Medicaid	137,360
Private Insurance	126,710

Doing the math:

126,710 divided by 160,000,000 equates to:

Less than one diabetes admission per 1000 covered <65 people!



Scoring

- $< 200,000$
- 200,000 to 500,000
- 501,000 to 1,000,000
- 3 points
- 2 points
- 1 point

Q Why this is an important question for this group?

- Wellness and diabetes vendors claim you can save money by preventing diabetes admissions. But there are very few admissions to prevent.
- Question their outcomes!
- For instance, *total diabetes events -- and insulin use -- should decline in a diabetes program.* (Livongo's latest outcomes claims *excluded* those measures.)
- Ask them to get validated by the Validation Institute. [It appears they have many questions to answer before being validated](#) that they are refusing to answer.



Before we announce the winners...

Two 15-second shameless plugs



Q *15-second shameless plug on education:
Did you learn something just now?*

A

Are any of your own health behaviors or healthcare purchasing patterns going to change?

B

C



Did you learn something just now?

A

Are any of your own health behaviors or healthcare purchasing patterns going to change?

B

Are your employees being harmed by lack of education?

C



Did you learn something just now?

A

Are any of your own health behaviors or healthcare purchasing patterns going to change?

B

Are your employees being harmed by lack of education?

C

Would employees learn how to improve their health and save money from quizzes like these?

Q *15-second shameless plug on engagement*

A

Do we still have your attention?

B

C

Q 15-second shameless plug on engagement

A

Do we still have your attention?

B

Can you see why 94% of employees who start a Quizzify monthly quiz complete it?

C

Q 15-second shameless plug on engagement

A

Do we still have your attention?

B

Can you see why 94% of employees who start a Quizzify monthly quiz complete it?

C

Is this the single most engaging “product demo”
you’ve ever seen?

Completing the scoring and announcing the winners

- Add up the scores on each page
- Total them at the bottom
- I will be asking to you to raise your hand if you hit a certain score and we'll see who wins. Keep those hands up.

Quizzify



WISER EMPLOYEES MAKE HEALTHIER DECISIONS

Entertaining, educational quizzes to create a health-literate workforce.



THANK YOU!
al@quizzify.com