

Debunking the Myths: Hot Topics and Research in the News

Rebecca Edelmayer, Ph.D.
Director, Scientific Engagement
Medical & Scientific Relations

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Our Time Today...

- Therapeutic discovery process and current treatments
- How to be a savvy research consumer
- Importance of data and scientific evidence
- Q&A

Our Work is About People and Science



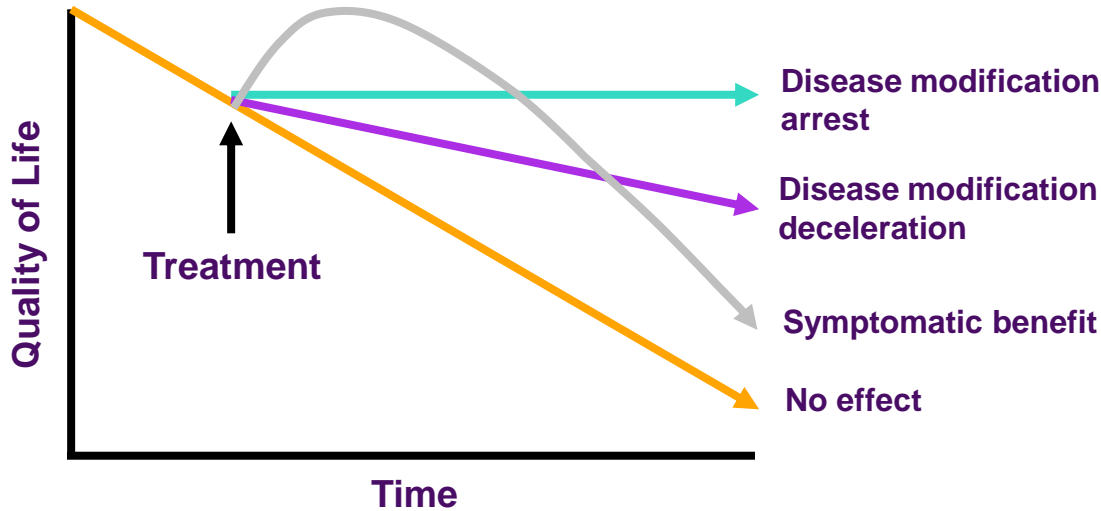
The Alzheimer's Association is a global organization working to advance care, support and research across the world

The Therapeutic Discovery Process

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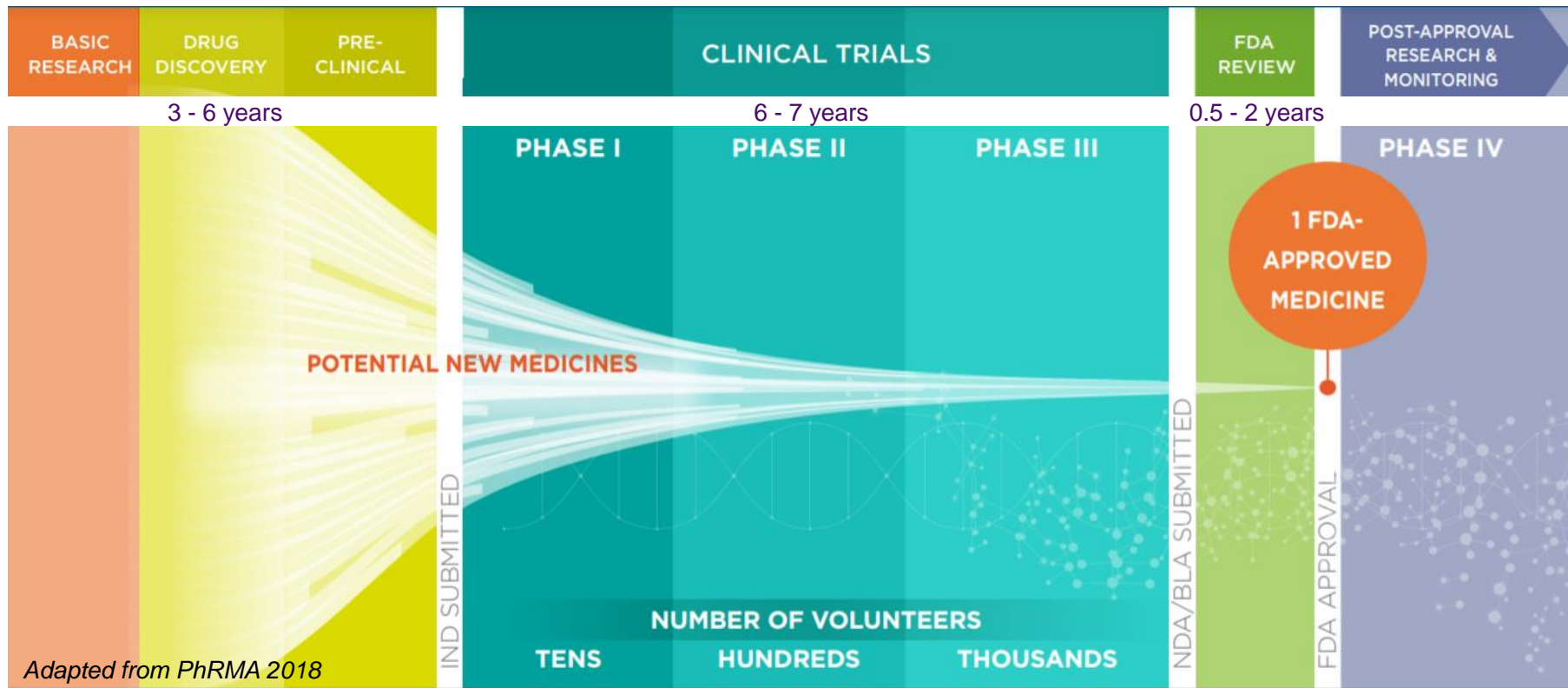
Available Therapies

Disease modification versus symptomatic benefit in the treatment of Alzheimer's Disease



- Currently, there are no therapies that can cure Alzheimer's
- Some drugs are available to temporarily improve symptoms

The Drug Discovery Process



Adapted from PhRMA 2018

FDA Approved Therapies

Cholinesterase Inhibitors

- donepezil (Aricept)
- rivastigmine (Exelon)
- galantamine (Razadyne)

Glutamate Moderators

- memantine (Namenda)

Combination

- donepezil + memantine
(Namzaric)

Approved For

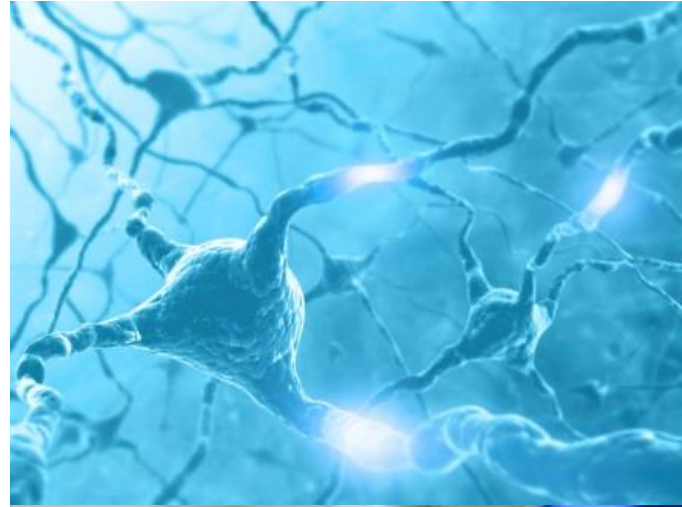
All Stages

Mild - Moderate

Mild - Moderate

Moderate - Severe

Moderate - Severe



How Drugs Work...

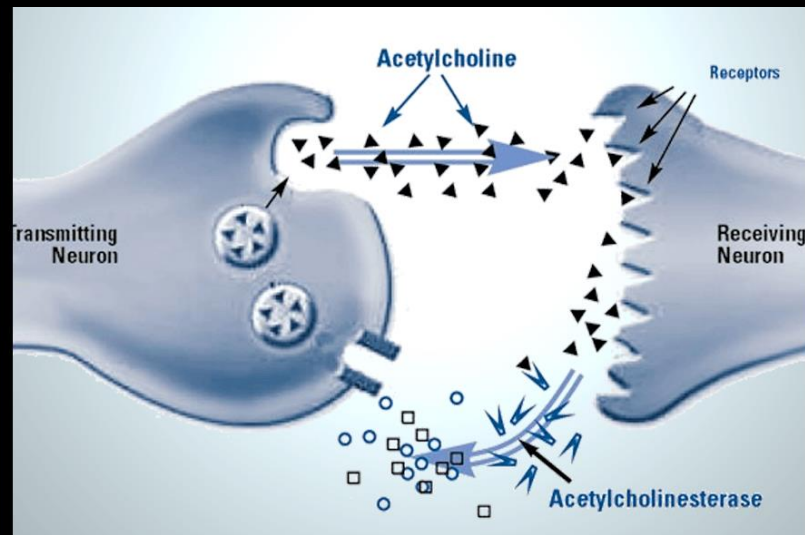
Cholinesterase inhibitors:

- Acetylcholine is a chemical in the brain
- These drugs block the breakdown of acetylcholine
- Can restore neuronal communication by concentrating the available chemical

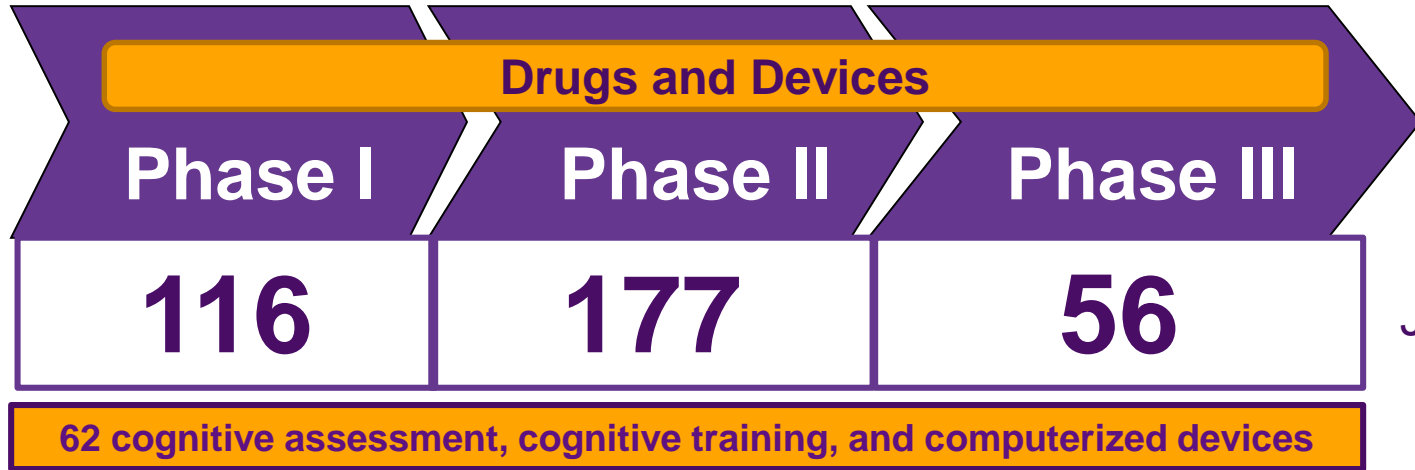
Glutamate moderators:

- Glutamate is an excitatory chemical in the brain
- Glutamate can overstimulate cells leading to neuronal cell death
- These drugs block the glutamate receptors from being overstimulated

Cholinesterase inhibitors and acetylcholine communication



Current Landscape of Clinical Trials for Alzheimer's & Dementia

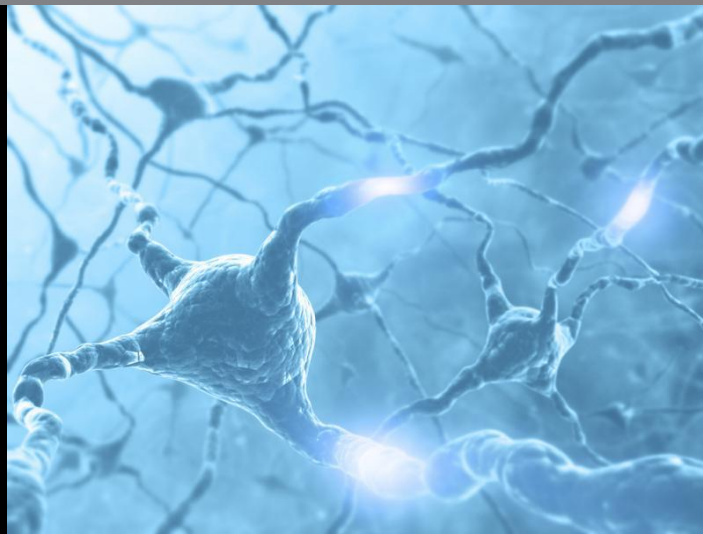


Always a Need for Participants

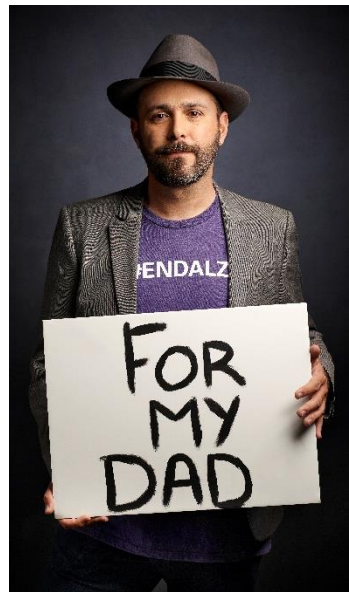
How To Read Research News Critically

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Exciting Time in Research



Awareness Continues to Grow



Hot Topics in Research News

Does education really protect against dementia?

By [Tim Newman](#) | Published Thursday 7 February 2019

MEDICALNEWS TODAY

Should you get a home genetic test?

Direct-to-consumer tests may help predict risks to your future health. But are they worth the cost and trouble?

Published: February, 2019




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

Is It Safe to Give People with Alzheimer's Medical Marijuana?

Minnesota becomes the latest state to allow medical marijuana for people with Alzheimer's. [healthline.](#)

Roche bails on late-stage studies of crenezumab in Alzheimer's Seeking Alpha^α

Jan. 30, 2019 7:02 AM ET | About: [Roche Holding Ltd ADR \(RHHBY\)](#) | By: [Douglas W. House](#), SA News Editor 

 Health » Food | Fitness | Wellness | Parenting | Live Longer Live TV U.S. Edition  

Blood test could detect Alzheimer's up to 16 years before symptoms begin, study says

By [Nina Avramova](#), CNN

Updated 2:45 PM ET, Tue January 22, 2019



Study links gum disease-causing bacteria to Alzheimer's

BY ASHLEY WELCH

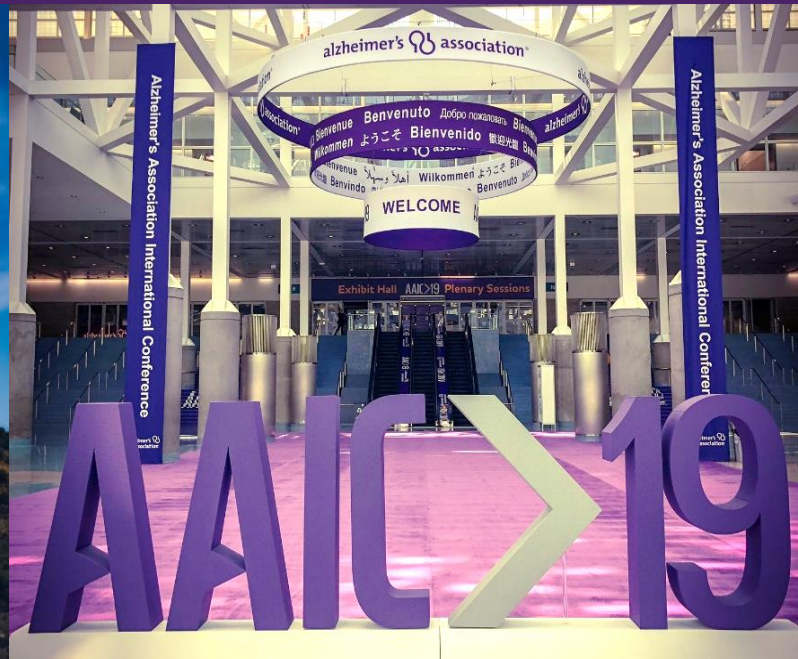
UPDATED ON: JANUARY 24, 2019 / 7:54 PM / CBS NEWS



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AAIC>19

ALZHEIMER'S ASSOCIATION INTERNATIONAL CONFERENCE®



JULY 14–18 ANNUAL CONFERENCE

JULY 12–13 PRECONFERENCES

JULY 14–17 EXHIBITS

Los Angeles, USA

alz.org/AAIC

AAIC Headline News...

AAIC: A Potential New Biomarker for Alzheimer's Disease

Published: Jul 15, 2019 | By Mark Terry



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NEWS ARTS & LIFE MUSIC SHOWS & PODCASTS SEARCH



Social Issues

Women who work for a salary see slow memory decline in old age, reducing risk of dementia, a new study suggests



3:36

TREATMENTS

Researchers Explore Why Women's Alzheimer's Risk Is Higher Than Men's

July 17, 2019 - 5:02 AM ET
Heard on Morning Edition

JON HAMILTON

PLAYLIST

DOWNLOAD

EMBED

TRANSCRIPT



Is targeting brain inflammation the key to beating Alzheimer's disease?

The past decade of Alzheimer's disease research has been fraught with disappointment. But some scientists say they're more hopeful than ever a cure will be found.



The Washington Post

CNN TIME

The Guardian

BBC NEWS

NEWS

We Must be Savvy Consumers

Viewpoint

January 25, 2019

JAMA Network[™]

The Rise of Pseudomedicine for Dementia and Brain Health

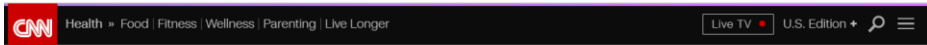
Joanna Hellmuth, MD, MHS¹; Gil D. Rabinovici, MD¹; Bruce L. Miller, MD¹

- **Concern about cognitive changes and dementia**
- **Increase in readily accessible information**
- **Not all sources contain quality medical information**

What to Look For in The News

- Details: objective of the study
- Randomized clinical trials in humans (not mice)
- Large study population
- Diverse study population
 - Sex, Geographic, Race, Ethnicity, Socio-economic
- Reproducible results
 - Validated by multiple studies or research teams

In The News...SPRINT-MIND Study



Lowering blood pressure could cut risk factor for dementia

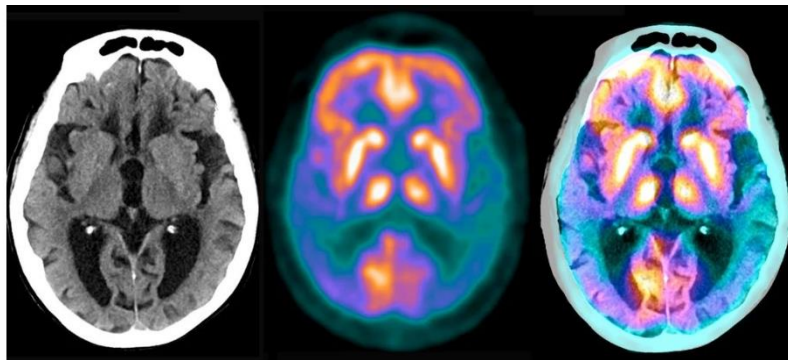
CBS EVENING NEWS WITH JEFF GLOR

the japan times

The New York Times

Study Offers Hint of Hope for Staving Off Dementia in Some People

People who received intensive treatment for hypertension were less likely to develop minor cognitive problems than those receiving standard treatment.



The SPRINT-MIND Study

First Study to Demonstrate Reduction of New Cases of Cognitive Impairment

- 9,000+ people, Over age 50, All-cause dementia risk
- Standard vs. Intensive Blood Pressure Intervention
- Intensive treatment 120 systolic vs. 140 systolic
 - **19% reduced** risk for **MCI**
 - **17% reduced** risk for **dementia** * Not Statistically Significant
 - **15% reduced** combined risk for **MCI and dementia**
- Dramatic reduction of small vessel disease on MRI



Workshop: Reading The Details...

NOT ACCURATE

Lower blood pressure slashes the risk of Alzheimer's by 15%, study finds

**TOO SOON TO SAY
ALZHEIMER'S WAS
NOT CONFIRMED
IN PARTICIPANTS**

- High blood pressure is a leading risk factor for heart disease, stroke and kidney failure
- A growing body of research suggests it may increase risk for dementia
- Last year, the US changed blood pressure guidelines: now those with a top reading over 130 have 'high blood pressure'
- A study of more than 9,000 over 50s found those who got it below the newly recommended level cut their risk of memory problems by 19%
- They also cut their risk of dementia by 15%, the study found

By [MIA DE GRAAF HEALTH EDITOR FOR DAILYMAIL.COM](#)

PUBLISHED: 11:00 EST, 28 January 2019 | **UPDATED:** 17:11 EST, 28 January 2019

Studies In The News are Not Always Generalizable to Diverse Populations

- Epidemiological vs. Observational vs. Randomized Controlled Trials
- News media are more likely to cover catchy observational studies
- History will show that scientists have done a poor job of accurately representing diverse populations in randomized controlled trials
- Concentrated proactive effort needs to be made to recruit and retain individuals from diverse racial and ethnic backgrounds
- More research is needed to confirm true biological differences

Lifestyle Research at AAIC 2019

- Combining multiple healthy lifestyle factors may be more impactful for reducing dementia risk
 - Healthy diet
 - Moderate to vigorous physical activity
 - Light to moderate alcohol intake
 - Smoking
 - Cognitive stimulation
- 4 or 5 → 59% lower risk of Alzheimer's dementia
- 2 or 3 → 39% lower risk
- May even offset risk associated with genetics

Can Alzheimer's be stopped? Five lifestyle behaviors are key, new research suggests

Following four out of five lifestyle behaviors can protect against mental decline, even in people with increased genetic risk.

July 14, 2019, 10:00 AM CDT / Updated July 14, 2019, 10:18 AM CDT

By Linda Carroll

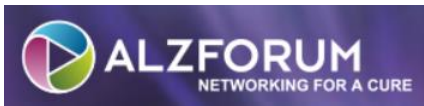
There's no cure for or drug to stop Alzheimer's disease, but it may be possible to [hold off dementia](#) – even in people who have a genetic risk, researchers reported Sunday at the Alzheimer's Association International Conference. The key is not any one factor, several studies show, but following a combination of healthy lifestyle habits. And the more healthy habits a person adopts, the lower the risk of cognitive decline.

People who followed four out of five lifestyle behaviors, including regular exercise, cognitive stimulation and a brain-healthy diet and not smoking, over a six-year period had a 60 percent lower risk of developing Alzheimer's dementia when compared to people who practiced only one or none of these habits, according to researchers from Rush University in Chicago.

Similarly, a UK study found that among people with a heightened genetic [risk of cognitive decline](#), dementia was 32 percent lower in those with a healthy lifestyle.

The logo for NBC News, featuring the peacock symbol and the word "NEWS" in a bold, sans-serif font.

Workshop: Reading The Details...



27 Aug 2019

Healthy Lifestyle Hedges Dementia Risk, but Not if Genetic Risk Runs High

TIME

It May Be Possible to Counter Some of the Genetic Risk of Alzheimer's With These Lifestyle Changes

BY ALICE PARK  JULY 14, 2019

- Both studies conducted in mainly individuals with European ancestry
- Data not confirmative or generalizable to all people
- More research is needed

Infectious Agents Debate



- As the world's leading forum for discussion of emerging topics in Alzheimer's and dementia research, AAIC 2019 hosted a panel discussion of five expert speakers with differing views on the role of bacterial or viral infection in Alzheimer's disease.

The Importance of Data To Support Medical Benefit

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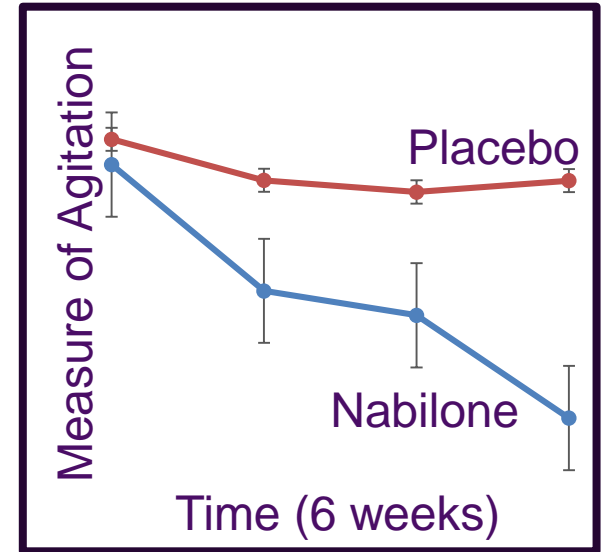
Challenging Unfounded Claims About Treatments

- FDA sends warning letters to manufacturers of **CBD products, vitamins, and dietary supplements** who are making claims their products prevent, treat, or cure serious diseases, such as cancer, Alzheimer's disease, psychiatric disorders and diabetes
- FDA has developed a working group to evaluate safety and to determine how to lawfully market CBD products



Nabilone Improves Agitation in People with Moderate to Severe Alzheimer's

- Small study (39 people)
- Nabilone is a synthetic cannabinoid - NOT marijuana
- More sedation in Nabilone group (45%) than in placebo group (16%), which is an important safety issue
- Needs replication in a larger study



AAIC 2018

'Natural' Medicine can Interfere with Proven Therapy

Original Investigation

October 2018

JAMA Network™

Complementary Medicine, Refusal of Conventional Cancer Therapy, and Survival Among Patients With Curable Cancers

Skyler B. Johnson, MD¹; Henry S. Park, MD, MPH¹; Cary P. Gross, MD²; et al

St. John's wort
One of the most studied
complementary medicines



St John's wort can interfere with effects of many prescription medicines

- cancer drugs
- immunosuppressants
- heart drugs
- HIV drugs
- blood thinners
- birth control pills

St John's wort has drug interactions

- Decreases drug efficacy
- Increases drug metabolism
- Decreases drug absorption
- Lowers drug concentration in blood

How to Spot Unproven Interventions

- Many supplements, diet suggestions and medical interventions exist within the law

Appeal to health concerns

Promote individual testimony as established fact

Use disease-related jargon, e.g. for memory or brain health

Lack credible efficacy or safety data

Ideas are Good, Data are Better

Where Can You Learn More?

- [alz.org](https://www.alz.org)
- [alz.org/research](https://www.alz.org/research)
- Alzheimer's Association Helpline 24/7:
[1-800-272-3900](tel:1-800-272-3900)
- Members of the public can send an email to:
sciencestaff@alz.org

In Summary ...

- **Exciting time in research**
- **Demand rigorous science**
- **Be a savvy research consumer**



Q&A

A WORLD

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