

# TODAY



## *A Prescription for Change*

*By Jean Talleyrand, M.D.*

Change is difficult. It requires critical thinking, good planning and action. And even when you do everything right, you still feel the emotions of change. Psy-

chiatrist Erik Erikson, MD describes stages in child development that progress with crisis, resolution and change. Others might simply sum it up to “growing pains.”

Our culture is currently going through change. We have had too many years of incarcerations for medical marijuana use. The Obama administration recently decided that change was in order. Although the Department of Justice continues to assert that “marijuana is a dangerous drug”, they have grudgingly decided to allow medical marijuana use; following guidelines set forth by individual states. Meanwhile 13 more states have put medical marijuana on their ballot. We are truly in a time of change.

Fall is a time of change. The growth and bounty of the summer is harvested and preserved in preparation for future use. Now is the time to reflect on all the great things you did for yourself this summer and use it to become a changed person. Watching your food intake can control your diabetes. It's not necessary to let those pounds creep up; you can continue the exercises you started this summer. That back pain was feeling better with stretching; you may soon be pain free.

I saw many patients this summer leaving my office determined to make things better. I would like to applaud MediCann patients for defying common misperceptions about their health. I would like to applaud MediCann patients for being the agent of change in

our community. I would like to applaud MediCann patients for being *A Prescription for Change*.

Yours in health,

Jean Talleyrand, M.D.,  
 President,  
 MediCann, Inc.

---

## ***Cannabis and Alzheimer's disease***

BY DEBORAH MALKA MD, PHD

### Alzheimer's Disease

The National Institute on Aging states in its booklet “Understanding Alzheimer's disease (AD)”: “Alzheimer's disease is an illness of the brain. It causes large numbers of nerve cells in the brain to die. This affects your ability to remember things and think clearly. Doctors don't know what causes the disease. They do know that it usually begins after age 60 and nearly half of people age 85 and older may have Alzheimer's. However, it is not a normal part of aging...” An estimated 26.6 million people worldwide had Alzheimer's in 2006; this number may quadruple by 2050.

The mechanism involved in causing AD is not known, but there are some theories. The nervous tissue of the brain in people with Alzheimer's shows an increase in abnormal structures called plaques and tangles. Plaques build up between nerve cells and contain deposits of a protein fragment called beta-amyloid. Tangles are twisted fibers of another protein called tau. Tangles form inside dying cells. The plaques and tangles tend to form in a predictable pattern, beginning in areas important in learning and memory and then spreading to other regions. In addition, levels of acetylcholine, a neurotransmitter required for nerve condition, are abnormally low in the brains of Alzheimer's patients.

(Cont. from page 1)

## Standard Treatment

There are medicines that can treat the symptoms of Alzheimer's. However, there is no cure. Some medicines keep memory loss and other symptoms from getting worse for a time. These medicines work best if Alzheimer's disease is found early.

Currently, there are four FDA-approved drugs that treat the symptoms of Alzheimer's disease by inhibiting acetylcholinesterase, the enzyme responsible for the degradation of acetylcholine. This serves to maintain higher levels of the deficient neurotransmitter, acetylcholine. Examples of these medicines include donepezil (Aricept), galantamine (Razadyne), and rivastigmine (Exelon). These may temporarily help improve memory and daily functioning in some people who have Alzheimer's disease. Other interventions may address behavioral and social issues such as anxiety, depression and home safety.

## Alternative Treatment

Alternative treatments include supplements and herbal products that may prevent nerve degradation. A promising herbal product is Huperzine A. This is a moss extract that has been used in traditional Chinese medicine for centuries. It has properties similar to those of cholinesterase inhibitors. Studies have shown that Huperzine A may be as effective as the approved drugs.

Research has suggested that polyphenols -- which are found in high concentrations in tea, nuts and berries, as well as red wine, may inhibit or prevent the buildup of toxic plaques that have been associated with Alzheimer's disease.

*Flaxseeds, walnuts, salmon, soybeans, tofu, shrimp and scallops are some of the healthiest foods that are rich in Omega 3 fatty-acids. Omega 3s are also good for Type 2 Diabetes; depression; fatigue; joint pain; dry, itchy skin and brittle hair and nails.*

Omega 3 fatty-acids have long been touted to act as anti-oxidants for brain tissue and may be preventive in slowing the formation of dementia.



## Cannabis and Alzheimer's disease

Research has shown that cannabinoids act as neuroprotective agents and anti-oxidants for nerve cells. The effect of cannabinoids on Alzheimer's disease has been studied in several laboratories globally in the past few years. (1). Their findings concur that cannabinoids may slow the progression of AD. In addition, marijuana has also been shown to help appetite and weight gain in Alzheimer's patients with anorexia.

Scientists at The Scripps Research Institute, in California have found that the active ingredient in marijuana, THC, inhibits the formation of amyloid plaque, the primary pathological marker for Alzheimer's disease. In fact, the study said, THC is "a considerably superior inhibitor of [amyloid plaque] aggregation" to several currently approved drugs for treating the disease." THC inhibits the enzyme acetylcholinesterase, which acts as a "molecular chaperone" to accelerate the formation of amyloid plaque in the brains of Alzheimer victims. (2)

Prof. Raphael Mechoulam, a medicinal chemistry expert who discovered marijuana's active component (THC), conducted a study with researchers in Spain that compared brain tissue from people who had AD before they died with age matched control samples. They found a dramatically reduced functioning of cannabinoid receptors in diseased brain tissue, meaning that patients had lost the capacity to experience cannabinoids' protective effects. Using cell cultures, the investigators confirmed that cannabinoids reduced inflammation in the brain.(3) Because cannabinoids combine both anti-inflammatory and neuroprotective actions, these findings may set the basis for the use of these compounds as a therapeutic approach

---

MEDICANN APOLOGIZES FOR ANY PROBLEMS THAT YOU MAY HAVE FACED WITH OUR PHONE SYSTEMS. WE ARE STILL IN THE PROCESS OF UPDATING THE SYSTEMS TO ACCOMODATE YOU AND OUR GROWING NEEDS.

THANK YOU FOR YOUR PATIENCE.

for AD. (4) Mechoulam said that the discovery was important, since most drugs given for neurodegenerative diseases like Alzheimer's and Parkinson's work merely against symptoms and not the cause and essence of the neurodegeneration. (5)

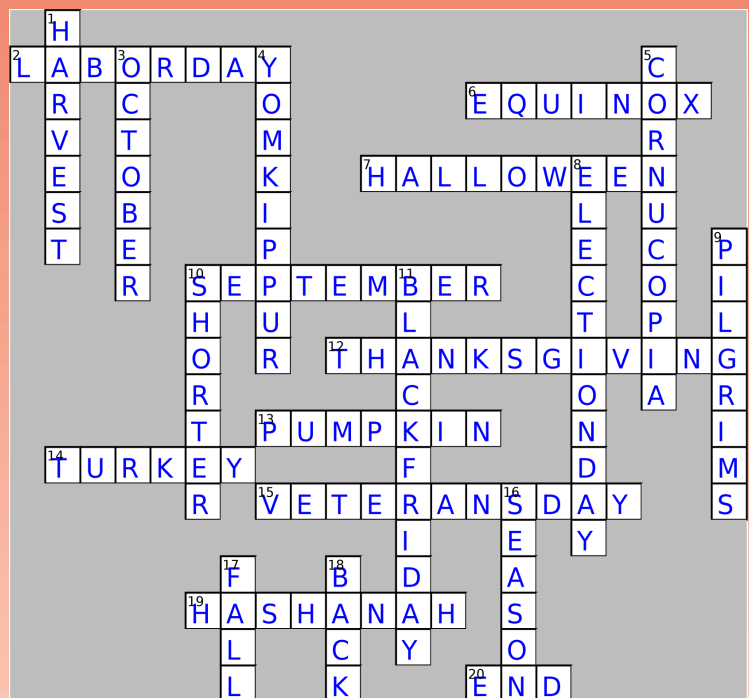
Dr. Gary Wenk, an expert on aging studied the effect of cannabinoids in rat brains. The studies show that a component in marijuana reversed memory loss in older rats' brains. (6) When ProCon.org spoke with Dr. Wenk on Dec. 11, 2008, he explained that in his 30 years of research into improving memory throughout aging, "nothing seemed to work on old brains" but that synthetic "cannabinoids worked." Research on marijuana as a treatment for Alzheimer's disease began because of the drug's success in slowing progression of multiple sclerosis and reducing patients' pain, Wenk said. Alzheimer's affects a similar part of the brain that MS does. "Could people smoke marijuana to prevent Alzheimer's disease if the disease is in the family? We're not saying that, but it might actually work," he said. "What we are saying is it appears that a safe, legal substance the mimics those important properties of marijuana can work on receptors in the brain to prevent memory impairments in aging. So that's really hopeful."

#### References

1. Campbell VA, Gowran A. Alzheimer's disease: taking the edge off with cannabinoids? Br J Pharmacol. 2007; 152(5): 655-662.
2. Eubanks LM, Rogers CJ, Beuscher AE, Koob GF, Olson AJ, Dickerson TJ, et al. "A molecular link between the active component of marijuana and Alzheimer's disease pathology." Mol Pharm. 2006; 3: 773-777.
3. Pazos MR, Nunez E, Benito C, Tolon RM, Romero J. "Role of the endocannabinoid system in Alzheimer's disease: new perspectives." Life Sci. 2004; 75: 1907-1915.
4. Ramirez BG, Blazquez C, Gomez del Pulgar T, Guzman M, de Caballos ML. "Prevention of Alzheimer's disease pathology by cannabinoids: neuroprotection mediated by blockade of microglial activation." J Neurosci. 2005; 25: 1904-1913.
5. Siegel-Itzkovich, Judy. "Marijuana slows Alzheimer's." Jerusalem Post. 24 Feb 2005. <<http://www.mapinc.org/drugnews/v05/n307/a10.html>>
6. Y. Marchalant, F. Cerbai, H. Brothers, G. Wenk. "Cannabinoid receptor stimulation is anti-inflammatory and improves memory in old rats." Neurobiology of Aging. 2008; 29(12): 1894-1901.

DO YOU WORK AT A DISPENSARY?  
 DO YOU NEED TO VERIFY ONLINE AND HAVE  
 ISSUES CONNECTING TO OUR FLASH WEBSITE?  
 TRY OUR NEW HTML VERIFICATION SITE:  
<http://medicannusa.com/verification/>

#### CROSSWORD SOLUTION



## **Memory Walk®:** **"We're on the MOVE to end Alziemer's"**

The Memory Walk® is a nation-wide event to raise awareness and funds for Alzheimer care, support and research. According to the Alzheimer's Association, who also organizes the event, today as many as 5.3 million Americans are living with Alzheimer's disease--this number does not include all the family and friends who are also affected.

Please take time to visit the Alzheimer's Association website for more information on this event.

<http://www.alz.org/memorywalk/>

1.866.632.6627 (appointment line)  
[www.medicannusa.com](http://www.medicannusa.com)

## Olive Oil Recipe

### Supplies:

200-250 grams of good quality organic cannabis shake (trim)  
 Slow cooker  
 Cheese cloth  
 Silkscreen, min. 200+ thread count per inch  
 3 Litres Extra Virgin Olive Oil  
 Colander or strainer

1. Put cannabis into slow cooker, and add olive oil until it just covers the cannabis.

2. Turn slow cooker onto High for 2 hours, and then turn down to Low for an additional 4 to 6 hours, stirring occasionally.

\*\* If one wishes a stronger product, add fresh cannabis to the previously heated oil left in the slow cooker and top up oil to cover the cannabis; keep cooking on low heat overnight or up to two days.

3. Strain oil, as warm as possible, through cheese cloth, then strain through silkscreen.

*This recipe is brought to you by The Wo/Men's Alliance for Medical Marijuana (WAMM)'s website at <http://www.wamm.org/>. WAMM is a collective of patients and caregivers providing hope, building community and offering medical marijuana on a donation basis in Santa Cruz, CA. Please support and help their efforts by visiting their site.*

*All WAMM patients receive compassionate appointments at MediCann, we support and believe in their efforts.*

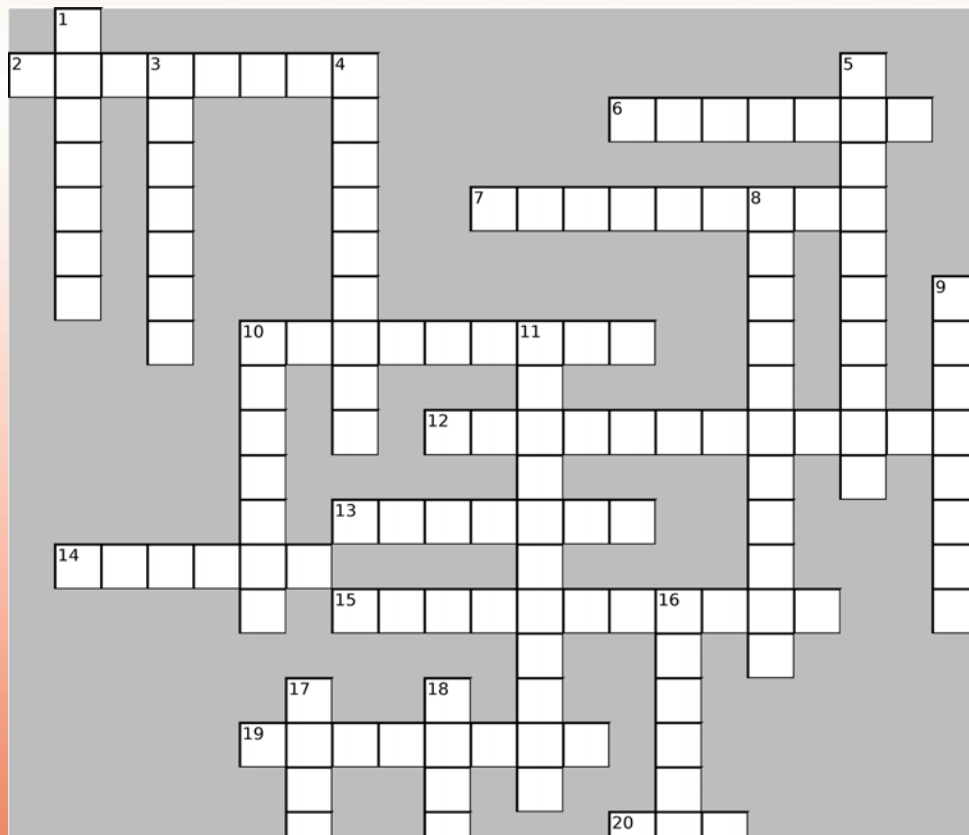
## GOODBYE SUMMER, HELLO FALL!

A CROSSWORD PUZZLE

### Across

2. You don't wear white after this day (2 words)  
 6. The first day of autumn is known astronomically as the -----

7. Night of trick-or-treating  
 10. The first day of autumn is in this month  
 12. Fourth Thursday of November  
 13. An orange gourd-like squash  
 14. Favorite Poultry in November  
 15. November 11th (2 words)  
 19. Rosh -----  
 20. In fall, Daylight Savings Time will ---



### Down

1. The season's yield or crop  
 3. National Breast Cancer Awareness Month  
 4. Day of Atonement, Jewish holiday (2 words)  
 5. A symbol of plenty  
 8. The Tuesday after the first Monday in November (2 words)  
 9. If April Showers bring mayflowers, what do Mayflowers bring?  
 10. Nearing winter, the days will get -----  
 11. The day after Thanksgiving in the US (2 words)  
 16. A division of the year marked by a change in weather  
 17. Autumn is also known as ----  
 18. Spring forward, Fall ----

(Solution for the **Goodbye Summer, Hello Fall!** on page 3)

MEDICANN ON TWITTER: [HTTP://TWITTER.COM/MEDICANN](http://twitter.com/MEDICANN)

MEDICANN ON MYSPACE: [HTTP://WWW.MYSPACE.COM/MEDICANN](http://www.myspace.com/MEDICANN)

MEDICANN ON FACEBOOK: [HTTP://WWW.FACEBOOK.COM/MEDICANN](http://www.facebook.com/MEDICANN)