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## How to Avoid Getting Dementia



*Dr. Andrew Wiens MD FRCPC, Director of Outreach to Long Term Care Homes (Ottawa). Division of Geriatric Psychiatry, University of Ottawa*

### Key Point:

Getting regular exercise and following a healthy diet will increase your chances of avoiding Alzheimer's.

Hopes were high when the U.S. National Institutes of Health invited experts to review the available evidence on trying to prevent Alzheimer's disease and Dementia. They were dashed at the conclusion published in April 2010: "No evidence of even moderate scientific quality" was found.

So what do we do with this? Throw in the towel? No, we do as doctors do best: Look for clues that suggest ways to diminish suffering, as listed in the report, "Preventing Alzheimer's disease and Cognitive Decline" (Available free at: [www.ahrq.gov/downloads/pub/evidence/pdf/alzheimers/alzcoq.pdf](http://www.ahrq.gov/downloads/pub/evidence/pdf/alzheimers/alzcoq.pdf)). At 727 pages, this report is quite a task to read, so I will give a summary of what clues were found.

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## WEBINAR FOR FAMILY PHYSICIANS

Alzheimer Knowledge Exchange *Online Event*

*Linking People, Resources & Ideas*

**Topic:** 1) How to Avoid Getting Dementia

**Presenter:** Dr. Andrew Wiens, FRCP(C), Division of Geriatric Psychiatry, University of Ottawa

**Date/Time:** Thursday, June 09, 2011 from 12 to 1 p.m.

### Register Now!

Complete the online registration form at <http://www.surveymonkey.com/s/7P2V8PF>

### Technical Requirements:

**Visual Support** — The presentation will be accessible via an internet connection. This connection can be any web-enabled laptop or desktop computer of your choice.

**Audio Support** — Audio support for the presentation will be provided through your telephone via a toll-free line.

You will receive a confirmation email 24-48 hours prior to the session. Thank you, we look forward to your participation!

## How to Avoid Getting Dementia (cont'd from page 1)

There are two types of risk factors: modifiable and non-modifiable. Age and genetic makeup are non-modifiable, so I won't discuss them here.

What about modifiable risk factors? Interestingly, avoiding the bad things or doing the good things reduces the risk two-fold each.

### 1. Physician-related modifiable risk factors:

- Avoid estrogen with progesterone
- Avoid non-steroidal anti-inflammatories
- Watch Blood Pressure
- Watch Cholesterol

For the first two, don't touch them unless there is a good reason; it may not always be a good thing to take them away. But if your patient is not on these, think of alternatives if they are needed. Unfortunately, hypertension and cholesterol are more markers of risk of Alzheimer's, rather than something that will lower its risk if treated: but, there are other good reasons to treat hypertension and cholesterol.

### 2. All other modifiable risk factors: i.e. "Listen to your Mother...she knows her evidence-based medicine!"

- **"Stay in school!"**...for more than 15 years!
- **"Use your brain!"**: Reading, writing, puzzles, playing card and board games, group discussions, playing music, and LEARNING: Just like you are doing here!
- **"Go play outside!"**: 1 or 2 times a week of strenuous activity: walking, hiking, bicycling, swimming, gardening, dancing. This works at any age studied!
- **"Don't roll in the grass!"**: Pesticides have been associated with higher risk.
- **"Wear a helmet!"**: protect your head when doing activities that are associated with higher risks of concussion.
- **"What'sa matta? Ain't you hungry?"**: The Mediterranean Diet is one of the few diets associated with decreased risk. See [www.oldwayspt.org](http://www.oldwayspt.org) for more information.
- **"Don't eat that junk!"** a.k.a. Bigger Waist=Smaller Brain. Avoid fast foods.
- **"Put out that cigarette!"**: 'Nuff said.
- **"Go play with your friends!"**: Have a socially rich life: visits with friends and relatives, going to movies, clubs, centres, church/ synagogue/ mosque etc.
- **"Go find a nice (girl, boy) and get married!"**: A close, intimate relationship is helpful, especially for men.
- **"Don't Worry, Be Happy!"**: Depression increases the risk of Alzheimer's.

Something Mom probably didn't tell you when you were growing up:

- **"I love to cook with wine...sometimes I even put it in the food!"** Wine does seem protective, up to 500 mL per day. I wouldn't prescribe this amount to a non-drinker, but I would certainly try to convince someone who drinks more than this to lower it to this amount.

So for now, that's state-of-the-art prevention. Many of these suggestions are also protective for the heart. They also sound like good New Year's resolutions, so some can also be started at New Year's!

# What is the First Line Treatment for Non-Aggressive Agitation in Alzheimer's Dementia?



**Kate MacKeracher, Medical Student, Schulich School of Medicine and Dentistry, University of Western Ontario**

Behavioural and psychological symptoms, including mood problems, psychosis, aggression, and agitation, are a major treatment challenge in Alzheimer's dementia (AD). Over five years, 90% of people with dementia develop at least one of these symptoms, 85% of which will be clinically significant, with serious implications for patients' quality of life, caregiver stress, long-term care use, and hospital admissions <sup>(1)</sup>. As non-aggressive agitation is one of the most common and distressing symptoms in AD <sup>(1)</sup>, physicians caring for AD patients should have an evidence-based approach to its management.

## The Evidenced-Based Approach

### **1) Rule out precipitants (type of evidence: expert consensus)**

Agitation may occur when AD patients are unable to articulate discomfort (e.g., pain, constipation, dehydration), or in the context of delirium (perhaps related to infection, medication, or metabolic disturbance) <sup>(1,2,3)</sup>. In addition to a careful physical exam and medication review, the clinician should consider ordering urinalysis, CBC, serum electrolytes, calcium, and glucose, to identify any easily correctable medical precipitants <sup>(2)</sup>.

### **2) Psychosocial therapies (type of evidence: systematic review of RCTs)**

A recent systematic review examined current evidence for psychosocial interventions for behavioural and psychological symptoms in dementia, including agitation <sup>(4)</sup>. Good evidence of lasting benefits has been shown for individualized behavioural management techniques, as well as specific education programmes for caregivers and for long-term care staff designed to increase knowledge of dementia and improve communication skills <sup>(4)</sup>. A number of RCTs have studied Reminiscence Therapy and Validation Therapy, but results have been equivocal for the symptom of agitation <sup>(4)</sup>.

### **3) Complementary therapies (type of evidence: systematic review of RCTs)**

Several RCTs of music therapy have described a decrease in agitation during treatment, although a Cochrane review concluded methodological problems limit the validity of these results <sup>(5)</sup>. A Cochrane review of aromatherapy in dementia found statistically significant benefit in agitation from a placebo-controlled randomized trial of *Melissa officinalis* (lemon balm)-based hand cream <sup>(6)</sup>.

### **4) Pharmacotherapy (type of evidence: systematic review and meta-analysis of RCTs; expert consensus)**

Antipsychotics have traditionally been used to treat behavioural and psychological symptoms in dementia <sup>(1)</sup>. One recent systematic review concluded that atypical antipsychotics have statistically significant benefit in short-term treatment of agitation <sup>(7)</sup>; another argued that methodological problems in published RCTs limit the reliability of these results <sup>(8)</sup>. Atypical antipsychotics can have significant adverse events in older adults with dementia; pooled data from placebo-controlled randomized trials show increased risks of cognitive deterioration, cerebrovascular events, and death, in addition to the usual side effects of increased somnolence and extrapyramidal symptoms <sup>(9,10)</sup>. Research is on-going into the efficacy of antidepressants and cholinesterase inhibitors in the treatment of agitation <sup>(1)</sup>.

## Conclusions

Currently, the first line treatment for non-aggressive agitation in AD is non-pharmacologic. Clinicians should begin by correcting any underlying medical problems, then focus on psychosocial interventions, including targeted behavioural techniques and caregiver education. Complementary therapies may also be tried. If agitation is refractory to these approaches, and causing severe distress to patients or those around them, a trial of an antipsychotic may be warranted. Patients or substitute decision-makers must be informed of the risks of this treatment (such as increased risk of cerebrovascular events and mortality), and the medication should be kept to the lowest effective dose, and discontinued as soon as feasible <sup>(1,2)</sup>.

*cont'd on page 4*

# What is the First Line Treatment for Non-Aggressive Agitation in Alzheimer's Dementia? (cont'd from page 3)

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## About the Ontario Dementia Network



The Ontario Dementia Network (ODN) is a coalition of regional dementia networks representing the 14 Local Health Integration Network areas around the province. Its mandate is to provide leadership to regional dementia networks in Ontario in the development of a comprehensive and well developed system of service delivery, education and public policy in the field of dementia.

We welcome feedback regarding any aspect of this newsletter. Please send comments to the Alzheimer Society of Ottawa and Renfrew County at [info@asorc.org](mailto:info@asorc.org) or call 613-523-4004.

For previous articles published on dementia for physicians, go to:

[www.champlainedmentianetwork.org/en-resources.asp#PHYSICIANS](http://www.champlainedmentianetwork.org/en-resources.asp#PHYSICIANS)

## Other Resources for Family Physicians

### ◆ **A Guide to Scheduling and Billing for Family Physicians (in Ontario)**

Ontario Dementia Newsletter for Physicians

Dr. Bill Dalziel, Regional Geriatric Program of Eastern Ontario

[www.champlainedmentianetwork.org/en-resources.asp#PHYSICIANS](http://www.champlainedmentianetwork.org/en-resources.asp#PHYSICIANS) - click on Dementia Newsletter for Physicians Vol. 1, No. 1, Fall 2010, page 1-2

### ◆ **Driving and Dementia Video (15 minutes)**

Dr. Frank Molnar, Chief, Regional Geriatric Program of Eastern Ontario

[www.akeresourcecentre.org](http://www.akeresourcecentre.org) - go to the right hand side and click on Driving and Dementia e-module.



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