



Centre de recherche  
sur le vieillissement  
Research Centre  
on Aging

Research Centre on Aging  
Sherbrooke Geriatric  
University Institute (SGUI)



# Encr âge

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## Preventing functional decline caused by drugs

by Claire Ducharme, M.Sc., M.A.

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**M**ore frequent use of drugs and the marketing of increasingly specialized and powerful drugs to treat previously incurable diseases have increased life expectancy. Drugs play an important role in the health and well-being of older adults. All the studies and surveys agree: the older people get, the more health problems they have and the more drugs they take. Statistics show that senior citizens are big drug users. Although they account for only 12% of the total population, they receive 28 to 40% of all medical prescriptions.

Used properly, drugs can improve the quality of life of older adults. However, all drugs involve risks and some of them can reduce autonomy and quality of life due to their adverse drug reactions (undesirable effects). With increasing age, some organs do not function as well as they used to. These changes, which occur mainly in the liver and kidneys, can alter the effect of drugs, which is why some older people are more sensitive to both the therapeutic and adverse effects of drugs. Therefore, it is essential for people weakened by age and disease to be treated with drugs that are adapted to their condition, and maintain their autonomy and quality of life.

"Polymedication" (taking several drugs at the same time), coupled with greater sensitivity to adverse drug effects, exposes older adults to an increased risk of drug-related problems: undesirable effects, drug interactions, drug management difficulties, inappropriate prescribing (not indicated, wrong drug, dose too low or too high, lack of follow-up, contraindications, etc.).

This has serious consequences because these problems can cause functional dependence, even hospitalization. According to the experts, 20 to 28% of elderly hospitalizations are drug-related. From 48 to 60% of these hospitalizations are attributable to adverse effects, 27 to 40% to not following the drug regimen, and 19 to 36% to inappropriate prescriptions.

Did you know that the inability to manage drugs can be one reason for placement in a nursing home? Many institutionalizations could be avoided by better use of drugs and early detection of older adults who have problems with drugs. In the aging population, the most vulnerable older adults are those who are already at risk of functional decline, live at home and do not get any help from a CLSC. Those who are followed by CLSC's home care services can rely on the expertise of health professionals if they encounter a problem with drugs. At present, however, home care programs do not reach all older adults at risk of functional decline. An unknown percentage, who are not followed by a CLSC, are at risk of drug problems that could cause them to lose their autonomy.

*This newsletter is aimed at people who participated to the projects of the Research Centre on Aging.*

*It is also distributed to anyone who wants to receive it. Contact us!*

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# Suicide in older adults: a growing and disturbing phenomenon

By Michel Prévile, Ph.D., Sociologist



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**I**n the past few years, suicide awareness campaigns have targeted young people. However, the number of suicides among older adults is rising quickly. In Quebec, the number of deaths by suicide among people aged 65 and over jumped 85.4% between 1977 and 1999, from 9.9 to 18.3 deaths per 1,000,000 inhabitants. This increase occurred despite improvements in older adults' living conditions and health. If this trend continues, the number of suicides could rise by 248% by 2043!

These data come from a study conducted by researchers at the Research Centre on Aging, Sherbrooke Geriatric University Institute, and the Université de Montreal. More specifically, our study looked at the factors associated with elderly suicide.

A lot more effort in recent years has been devoted to suicide prevention in the young than the old. However, between 1996 and 1999, the average suicide rate among people aged 65 and over was 30% higher than in the 10 to 19 year-old age group. It seems that society, health professionals, family members and older adults themselves consider suicidal ideas to be a normal occurrence in the aging process. When older adults talk about death, people rarely think much about it but when young people talk about death, suicide immediately springs to mind.

The fact that elderly suicide is not taken seriously in our society seems to be a manifestation of the discrimination against older people called agism. The stereo-type goes like this: most older adults are frail and senile and no longer have the same desire to live since they have already lived a long time. In fact, research shows the opposite: the majority of older adults are in good health and live at home!

Our results also show that 75% of the people in our study who committed suicide had talked about death or exhibited suicidal behaviour in the six months preceding their death. This suggests that ordinary people could play an important role in suicide prevention by encouraging their family members and friends to discuss their suicidal thoughts with a health professional.

We also found that the people who committed suicide did not have more chronic health problems than the subjects in the control group. In fact, six months before their death, the suicide cases had a better level of functional autonomy than those who died from other causes.

However, the older adults who committed suicide were more likely to suffer from psychiatric disorders. For their mental health problems, older adults usually consult their family doctor rather than other health professionals. Therefore, the researchers suggested that efforts should be made to help general practitioners better detect psychiatric disorders, especially depression.

Although doctors can play a very important role in reducing suicide risk immediately, they are only the starting point of an intervention that must aim at reducing the vulnerability of suicidal older adults over the longer term. It would be a mistake to think that pharmacological treatment of a psychiatric problem, such as it is often the case in a suicidal crisis like depression, is enough. Our results show that only 29.5% of the people in our study who committed suicide had visited a psychologist or social worker in the six months preceding their death.

Given all the results of our study, we suggest revising Quebec's Strategy for Preventing Suicide. We recommend three actions: (1) designating older adults as one of the priority target groups, (2) developing a preventive action plan targeting the families and friends of suicidal older adults, and (3) improving accessibility to mental health services for older adults presenting a suicide risk. <sup>1</sup>

# Nutrition – a matter of health even at an advanced age!

By H  l  ne Payette, Ph.D., nutritionist



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**A** proper diet is still essential for maintaining autonomy and quality of life, even at an advanced age. However, a significant percentage of frail older adults who live at home and in institutions do not eat enough to meet their energy, protein, vitamin and mineral needs. Also, many of them lose weight involuntarily, which confirms that their diet is inadequate. This weight loss or even being excessively thin has adverse effects on health and quality of life. It increases the risk of falling and hip fractures, reduces mobility, and accelerates functional decline and thus the likelihood of institutionalization.

In the past ten years, we have conducted several research projects to gain a better understanding of the nutritional status (see sidebar) of older adults still living at home but whose autonomy is at risk. Since we observed many cases of nutritional deficiency in this population, we developed and evaluated some nutritional interventions (counselling, taking supplements, etc.). Our objective was to optimize dietary quantity and quality in order to improve functional capacities and vitality. Our results showed the positive impact of these interventions on dietary quality, weight gain, and some health aspects. However, they did not improve muscle strength, mobility or endurance. Is it in fact too late to intervene once nutritional status has been compromised? Wouldn't prevention be better than cure?

We must admit that there is a lot we still do not know about how changes in nutritional status contribute to successful aging or, conversely, to the development of disabilities and frailty. Disabilities, for example, can lead to difficulties getting around or climbing stairs, and frailty to fatigue or muscle pain. However, we need this knowledge to develop appropriate nutrition intervention strategies designed to maintain or restore autonomy, and reduce the incidence and adverse effects of age-related diseases on the quality of life of people as they age.



*Part of the NuAge team in Montreal and Sherbrooke*

To answer these questions, the Canadian Institutes of Health Research recently approved funding for an original project to study the nutritional status of a large group of older persons over a five-year period. A total of 900 men and 900 women aged 68 to 82 years of age will be recruited to participate in the study in the Sherbrooke and Laval regions. The two Quebec geriatric university institutes, one in Montreal (IUGM) and the other in Sherbrooke (IUGS), are working closely together to set up this large-scale project. Doctors, nutritionists and researchers in biomedical and biological sciences are all involved in this study. They are supported by a team of about fifteen research officers. This group will follow the subjects on an annual basis to determine the characteristics, scope and dynamics of the interactions between dietary intake, weight and nutritional reserves. It will look at the maintenance of physiological functions, ability to perform activities of daily living, health and quality of life.

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## NUTRITIONAL STATUS

A person's nutritional status is a profile that contains a variety of information:

- Diet;
- Use which the person's body makes of the vitamins, minerals, proteins, lipids and carbohydrates in the food and supplements consumed;
- Body measurements: weight, height, muscle mass;
- Fat, vitamin and mineral reserves.

## ...DRUGS

These findings and questions gave rise to the idea of doing a study to clarify the situation. Recently, the Regional Health and Social Services Board (now called the Agence de développement des réseaux locaux de services de santé et de services sociaux de l'Estrie ) approved a grant for us to study the role that could be played by community organizations providing home care services for senior citizens. The results of this study could help to identify vulnerable older adults. The professionals involved (doctors and pharmacists) could intervene sooner, before functional decline caused by drugs occurs. Obviously, this could really benefit older adults, especially by maintaining their autonomy so they can remain at home and by improving their quality of life. †

### An invitation to the participants of our research projects!

You are invited to visit the Research Centre on Aging on Wednesday, June 9 2004! It's our way to thank you for your collaboration to our studies. Without your participation, we couldn't do our research projects. Don't miss this opportunity!

There will be French guided tours between 9:30 and 11:30 a.m. A tour will start every 15 minutes. At lunch time, conferences will be presented (in French).

English guided tours will take place between 1:00 and 2:30 p.m. There will be a new departure every 15 minutes.

No registration is required for this free activity. The meeting point is in the room Bombardier of the Sherbrooke Geriatric University Institute.

We hope to meet you in June!

## ...NUTRITION

We think that optimal nutrition will contribute to successful aging and, conversely, that nutritional deficiencies are risk factors for the disorders of old age. A battery of measures such as weight, height, eating habits, muscle strength, walking speed, getting around, social contacts, blood sugar (and many others) will be taken annually for five years. The data will be coded and analyzed in order to answer many research questions, including: Can a better diet improve response to the flue vaccine? What are the causes and consequences of the changes in appetite and feeling of being hungry often experienced by older adults? Can cognitive functions be improved or impaired by diet? What role does exercise play in preventing falls and muscle weakness?

These are only a few examples of the numerous questions that will be explored in this study. One thing is already clear: nutrition can affect health and autonomy. The results of our work will have a significant impact on promoting a balanced and appropriate diet, which will help to improve quality of life and prevent disease at an advanced age. They will also be used to develop special food guides for older adults, adapted to their habits and needs. These results may eventually improve services for older adults and health policies in regard to successful aging. †



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