

FEBRUARY 2002

**STATEMENT OF CONCERN TO THE CANADIAN PUBLIC FROM  
CANADIAN NEUROLOGISTS REGARDING THE DEBILITATING AND  
FATAL DAMAGE MANIPULATION OF THE NECK MAY CAUSE TO THE  
NERVOUS SYSTEM.**

We Canadian neurologists hereby express our strong concern and thereby issue this warning to Canadians. The public must be made aware that the neurological damage that can result subsequent to upper neck manipulation can be debilitating and fatal.

We make the following recommendations for the attention of the Canadian public, the practitioners of manipulation, the medical community, the provincial Ministries of Health and the health care professional regulatory bodies.

Our concerns are significant. Stroke and death due to neck manipulation has been reported in the scientific literature for over 50 years. (1,2,3,4,5,6,7,8,9,10). New deaths, in the past few years, have been reported to the Canadian Stroke Consortium. (11). The Canadian Stroke Consortium recently published a major prospective study. (12) The latest data from the Stroke Consortium indicates that “more than 100 cases of dissection per year are associated with neck manipulation” (13). The resulting stroke and debilitation from such a large number is very significant.

A recent study by the Institute of Clinical Evaluative Sciences (ICES Ontario) indicates that patients with posterior circulation strokes under the age of 45 are 5 times more likely than controls to have visited a chiropractor within one week of the event (14).

**CONCERN NUMBER ONE**

**PHYSICIANS NEED GREATER DIAGNOSTIC AWARENESS OF THE  
NEUROLOGICAL COMPLICATIONS THAT MAY RESULT FROM NECK  
MANIPULATION**

Many physicians are not aware of the risks associated with neck manipulation and thus fail to undertake the appropriate investigations (15.) A history of neck manipulation or severe neck pain accompanied by signs or symptoms of stroke should prompt an immediate referral to a neurologist for examination and appropriate investigation.

Multiple neurological complications can result subsequent to neck manipulation. The most dramatic is arterial dissection leading to stroke and death. Cervical manipulation most commonly causes stroke occurring in the back part of the brain. This can be particularly disabling as it can affect such basic functions as swallowing, speaking and walking.

We recommend that the neurology community undertake an educational program for primary care and emergency room physicians to increase diagnostic awareness of the dangers of neck manipulation and its multiple neurological complications.

## **CONCERN NUMBER TWO**

### **THERE IS AN URGENT NEED FOR THE PUBLIC TO BE FULLY AND PROPERLY INFORMED OF THE DANGERS OF NECK MANIPULATION.**

Members of the public are largely unaware of the complications of neck manipulation. Well-documented complications include damage to the nerves in the neck, compression of the spinal cord by unstable discs, tearing of the arteries in the neck, stroke and death.

The most significant complication of manipulation is stroke secondary to torn arteries in the neck. The first symptom may be sudden neck pain following neck manipulation (12). Patients often ignore this pain, as it may have been neck pain that prompted the visit in the first place.

Other important symptoms suggestive of stroke include visual disturbances, nausea, dizziness, poor co-ordination, and weakness or numbness on one side of the body. The onset of these symptoms should prompt an immediate medical assessment. Under no circumstances should an individual allow their necks to be manipulated if any of these symptoms are present.

We recommend that the medical community undertake an information campaign to increase public awareness of the risks of neck manipulation. Special attention should be paid to increasing awareness of the symptoms of stroke following manipulation.

### **CONCERN NUMBER THREE**

#### **THE INDIVIDUAL PATIENT NEEDS TO BE FULLY AND DIRECTLY AWARE THAT SERIOUS RISKS DO EXIST.**

We endorse the major recommendations of the 1998 inquest into the manipulation-induced death of Laurie Jean Mathiason of Saskatoon, Saskatchewan. This Inquest recommended that the "risk of stroke and other inherent risks associated with chiropractic treatment be visible and available in the reception area of every chiropractic facility". (16)

We further recommend that other practitioners of manipulation therapy, including physiotherapists, should have a warning posted in their offices about the risks of neck manipulation.

Qualified epidemiologists, medical scientists and legal experts should develop a patient information form that is truly reflective of the risks. This should be presented to every patient. This should include up to date scientific information on the risks per individual patient rather than dated, non-scientific claims that significantly underestimate the risk to the individual patient.

### **CONCERN NUMBER FOUR**

#### **WE ARE CONCERNED THAT CURRENT AUTOPSY PROCEDURES FAIL TO DIAGNOSE ALL CASES.**

In the course of a routine autopsy, the vertebral arteries in the neck are almost never removed and examined. Cases of death due to neck manipulation have been missed. (17). It is important to know the true incidence.

As there may be a significant time delay between manipulation and stroke, any person dying of stroke within three months of a neck manipulation should have their carotid and/or vertebral arteries examined by a pathologist. This is especially important in those patients under the age of 45 in whom a clear cause for stroke cannot be identified. (14).

Suspicious cases should be reported to the office of the regional Coroner. This will allow a better estimate of the true incidence of stroke and death secondary to cervical manipulation.

## CONCERN NUMBER FIVE

### PROVINCIAL MINISTRIES OF HEALTH SHOULD ACKNOWLEDGE AND ACT UPON THE STRONG CONCERNS AND RECOMMENDATIONS OF THE SCIENTIFIC PEDIATRIC COMMUNITY REGARDING SO-CALLED "PEDIATRIC CHIROPRACTIC"

Chiropractors in Canada perform cervical manipulation in children for the "treatment" of infantile colic, inner ear infections, bedwetting and a myriad of other paediatric illnesses. Chiropractic authorities claim that parents should bring their new-born baby to a chiropractor "as soon as possible after birth" (18.) Such claims and recommendations have no scientific basis and only expose infants and children to unwarranted neck manipulation.

Strong concerns have been expressed by the Chiefs of Paediatrics of our Canadian Hospitals (19) and by the Canadian Paediatric Society regarding chiropractic manipulation on the spines of infants and children (20).

Paralysis and other complications in infants and children following cervical neck manipulation have occurred. (21) Death has also been reported. (23)

We strongly recommend that each provincial Ministry of Health order the immediate banning of all spinal manipulation of infants and children.

## CONCERN NUMBER SIX

### WE EXPRESS OUR STRONG CONCERN ABOUT THE MANY NON-SCIENTIFIC CLAIMS MADE AS TO THE CONDITIONS THAT PURPORTEDLY MAY BENEFIT FROM NECK MANIPULATION.

There are endless non-scientific claims being made as to the uses of neck manipulation. The public must be made aware that the very great majority of these claims have little or no evidence to support them.

We call upon the responsible governmental health authorities to conduct a full inquiry into the dubious claims being made. Representatives of all concerned parties should be brought together in such an inquiry. This should include an examination of the information being taught at all schools and courses dealing with manipulation therapy.

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