

Good morning ladies and gentlemen

I thank Professor David Kennedy and Professor Boyd Haley from USA, who have made it possible for me to come to this International Scientific Conference at the Royal Society of Medicine here in London February 6 – 7, 2010. Thanks also to the dental nurses Karen Palmer from the USA and Becky Dutton from the UK.

Thanks to emeritus Professor of chemistry/biochemistry Boyd Haley from the USA who has studied the effect of mercury and also how Hg permanently inhibits the enzymes which can lead to diminished excretion.

I look forward to meeting so many famous scientists from the USA, Europe and the UK.

My name is Tordis Synnøve Stigen Klausen. I'm a former dental nurse. I worked in a municipal dental clinic in Norway from 1969 to 1993. I was in really good health when I started working as a dental nurse. In 1978, for the first time, I was sick and no doctors were able to diagnose me as having mercury intoxication.

I am now 100 percent pensioned due to my medical condition

Many times I have asked myself why dental nurses never had been trained in the handling of mercury, the hazards of mercury vapor and the necessity of exercising good mercury hygiene.

Daily I prepared amalgam by hand and heated copper amalgam in an iron spoon until the mercury appeared in droplets. Copper amalgam consists of seventy percent mercury. The toxic fumes hit my face directly. Then the mass was mixed in my hands without protection. Eighty percent of mercury vapour is absorbed by the lungs and distributed around the body. Some of the mercury vapor ends up in the brain, where it accumulates. The dangerous element, the vapor, is invisible.

In 1978 I gradually fell ill with various symptoms and chronic pneumonia, severe bleeding, developed a uterine problem, problems with memory, concentration, chronic fatigue, hand tremor, memory loss, sleep disturbance, high porphyrin, immunologic effect, color vision losses, and neurological problems.

My illnesses were caused by the toxic environment at the clinic, and my MRI brain scanning photos in 1996 were scrutinized by well-known professors of neurology in Sweden and the USA. This investigation of my brain clearly revealed pathological findings to the cerebellum and basal ganglia, as well as some degree of cortical atrophy. The diagnosis was "G92 Toxic encephalopathy".

In 2000 a neurologist from a hospital in Norway examined me and my symptoms: Numbness, left side problems with balance, reduced colour perception left eye, myokymia left foot, rotary dizziness with tinnitus and radicular pain of variable intensity, left upper extremity damage.

Maths Berlin, MD, Professor Emeritus of Environmental Medicine made a statement in 1998 about mercury poisoning and the symptoms from the central nervous system.

Professor Berlin concluded that chronic mercury poisoning is the most likely cause of my brain injury and resulting functional insufficiency. He estimated the probability for this cause to be more than 75 percent. The way this case had been handled may have hampered my rehabilitation and therefore also contributed to my functional disability.

In 2007 a senior physician from the Department of Occupational and Environmental Medicine, Norway, concluded in a medical report about the period from 1969 to 1993:

"The condition of Tordis Synnøve Stigen Klausen is considered to be an occupational disease.

Permanent medical invalidity is estimated to be 45 percent, all of which is regarded to be work related".

Metallic mercury is neurotoxic and it is well known that mercury strongly inhibits enzymes, which can lead to diminished excretion, called retention toxicity (i.e., low urine mercury concentrations).

In 1938 Neal and Jones, after a study of the hatters, made clear that those who were most intoxicated had the lowest urine mercury, now called retention toxicity. Mercury inactivates the enzymes involved in excretory processes of mercury.

It is well known that Hg strongly inhibits enzymes (J. Leyden Webb 1963). This book has been in the library of the Directorate of Labour (Statens arbeidsmiljøinstitutt (STAMI).

The mercury level in my urine was low: 4nmol/L. After a chelation with DMPS in 1997 the mercury level was 1030 nmol/L. This indicates that I have lost my ability to excrete mercury into urine (Mercury inactivates the enzymes involved in excretory process of mercury).

In 1994 I did a lot of investigation and I found that professor Tor Norseth, who is an adviser to Ministry and government and Regional Development and Directorate of Labour Inspection, made a study in 1973 of copper amalgam exposure in 15 dental clinics in Norway.

He found that in the air inhaled in the breathing zone of the dental assistants at work, concentrations could be 1000 micrograms per cubic meter.

In 1988 FDI recommended a technical report about dental mercury hygiene. The report made clear that mercury is a potential health hazard in dental practice. Potential risks to dental personnel engaged in the constant use of mercury are recognized, and these should be neither exaggerated nor ignored. The greatest potential risk from mercury for dental surgery personnel is from vapour in the air (from spilled mercury).

The dental clinic where I worked lacked elementary safety equipment and ventilation.

Copper amalgam, giving particularly high exposure to mercury, was used in Norway until 1994.

In 2005 NRK, Norwegian broadcasting in Bergen, Norway made a documentary about "Mercury Girls, Mercury Children and Mercury Mystery." I was interviewed in the Mercury Girls and Mercury Mystery documentary to tell my history.

Among the others who were interviewed were Professor Bente Moen MD, toxicologist Bente Eli Hollund, both from Department of Occupational Medicine, and a dentist, Professor Nils Roar Gjerdet, Bergen. They found that mercury exposure had reached a high level. The documentary resulted in 400 women who were former dental nurses calling the television station. A high number reported children born with birth defects, learning disabilities, immunological, muscular and skeletal problems. The nurses had severe bleeding and multiple late abortions.

In 1994 I started as a "whistleblower" without understanding what horrible resistance I was going to meet. At that time and from the beginning my intention was only to withdraw Neo-Silbrin and Copper amalgam from the market. Later, when I understood the dangers from

mercury, I decided to spread information about health damage resulting from exposure to mercury and worked to have dental amalgam withdrawn from the clinics.

I lost my civil law suit in 1997 and an appeal in 1999, then appealed all the way to the Norwegian Supreme Court, but this was then denied. Professor Tor Norseth, leader of Directorate of Labour was called in to testify in the court. According to him, the mercury exposure had only been at a low level.

I have spent too much of my own money to explain the deep, meaningless tragedy which has destroyed our health permanently.

I was awarded a prestigious prize "The Zola Prize" in 2006. The prize is awarded to persons who openly and courageously have revealed or opposed conditions in Norway that threaten basic values in Norwegian society – human rights, democracy and legal protection.

Effective January 1, 2008, Norway banned the use of mercury in some products, including dental amalgam.

I would like to express sincere appreciation for the support and cooperation extended to me in many respects by Gerd Bang-Johansen, who is here today. She is the leader of our fairly new labour union (Tannhelsesekretærenes forbund ThsF).

Thank you

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Norway
Former Dental Nurse

Summer 1976



Tordis Synnøve Stigen Klausen, Norway

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