

Artificial Food Additives

food additives such as tartrazine, parabens, vegetable oils, protein additives, caffeine, cyclamates, flavours, etc. have been implicated in allergic reactions.

Let me now talk a little about hyperkinesis or hyperactivity. These are terms used to describe a syndrome in children whose unusual behaviour becomes a major problem in the home and at school. These children may be described as being constantly active, flitting from one object or activity to another, restless and fidgety; exhibiting voluble, uninhibited speech, disorganized thinking, and impulsive behaviour. They are irritable and aggressive, have a short attention span and are easily distracted.

There is some concern that hyperactive children may have emotional disorders as adults. The characteristics of these children, including impulsive behaviour, short attention span, attention-seeking behaviour, and low tolerance to frustration in the face of social and educational difficulties, suggest that this group may become abusers of alcohol and other drugs in their teenage years. One study indicates that there may be a relationship between hyperactivity and subsequent alcoholism. This study showed a higher incidence of alcoholism and hyperactivity amongst the biological parents than the adopting parents of adopted hyperactive children. In addition it was observed that hyperactives have a high incidence of hyperactivity and alcoholism amongst their relatives.

With respect to other types of anti-social behaviour, there are reports of cases of explosive personality characterized by aggressiveness with a "hair trigger" temper. In these cases the explosive personality was preceded by hyperactivity in childhood.

While there are few follow-up studies of hyperactive children, most of the evidence indicates that they have a relatively poor outcome. There is usually a high incidence of anti-social behaviour and contact with police, and many have become institutionalized as delinquents or have become psychotic. Follow-up studies suffer from a lack of comparison groups, from small samples and from inadequate analysis of behavioural pathology. The incidence of alcohol, and drug abuse in particular, has not yet been examined in detail.

Statistics on the incidence of hyperactivity in school children vary considerably among investigators. This variation stems primarily from the lack of agreement among scientists on either terminology or definition of the syndrome. For example, school authorities report the incidence of hyperactivity in children to be as high as 15 to 20 per cent, while psychiatrists estimate the prevalence to range from 4 to 10 per cent.

Investigators feel there are several possible factors associated with hyperactive behaviour in children. For example, some hyperactive children exhibit abnormal brain waves which have been related to physical brain damage during birth; however, the relationship between brain damage and hyperactivity is unclear.

In addition, genetically inherited metabolic disorders have been considered as a potential cause of hyperactivity. Hyper-

[Mr. MacGuigan.]

activity occurs four to ten times more frequently in male than in female children.

Mr. Yewchuk: Mr. Speaker, I rise on a point of order. We have been listening to the hon. member reading his speech for the last 15 minutes. I should like to bring to your attention paragraph 144 of *Beauchesne*, which reads as follows:

It is a rule in both Houses of Parliament that a member must address the House orally, and not read from a written, previously prepared speech—

I should think that the hon. member, having been here since 1968, would pay sufficient attention to the rules of the House to follow this particular rule. After nine years in this place he surely should be able to make a speech without having to read every word of it.

The Acting Speaker (Mr. Ethier): I think this point was brought up previously by the hon. member. Again I must repeat that the Chair does not want to challenge authorities such as he has quoted. No doubt the hon. member for Windsor-Walkerville (Mr. MacGuigan) was referring to notes which he has, and perhaps he would resume the normal practice in this House when making speeches.

Mr. MacGuigan: Thank you, Mr. Speaker. I will admit that I cannot speak with my customary fluency on a matter of this technicality without more frequent reference to my notes than is usually the case.

As I was saying when I was interrupted, it should be pointed out that similar sex ratios have been recorded for many congenital syndromes in medicine but no firm evidence exists that the sex chromosomes are involved in the transmission of these abnormalities. Whether the hyperactivity syndrome is genetic or sex-linked is not known, because of a lack of knowledge of inheritance patterns involved in hyperactivity.

Some investigators have associated hyperactivity in children with accidental poisoning by chemicals such as lead, but the clinical evidence to date is inconclusive. It is known, however, that hyperactive children have a greater tendency to accidental poisoning in the home, presumably due to their intense restlessness.

The belief in the relationship of food additives and hyperactivity has evolved primarily as a result of clinical studies conducted by Dr. Benjamin Feingold, a San Francisco physician. He recorded a marked clinical improvement in 50 per cent of hyperactive children treated with his "salicylate free diet," also called a K-P diet. This treatment permitted a discontinuation of all drug therapy and resulted in a substantial improvement in scholastic achievement in these children. The diet given to the children contained no food additives or foods such as tomatoes, potatoes, cucumbers, squash, jams, nuts and virtually all fresh fruits, that naturally contain salicylates.

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These initial clinical studies, as Dr. Feingold agrees, were empirical in nature. Although beneficial effects were observed, it is not possible to draw definitive conclusions from these