

## **Nutrition as an aspect of work-related health hazards to professional drivers**

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### Summary:

*Objective:* There are only a few contributions to literature about the nutritional status of professional drivers. In behalf of developing meaningful prevention strategies therefore important base data had to be raised.

*Method:* 390 truck and bus drivers, as well as 102 controls were asked about personal data and their habits and opinions concerning nutrition.

*Results:* We were able to confirm the empirical observation of an increased Body-Mass-Index and unfavourable eating habits of professional drivers. These problems are obviously made worse by a general tendency to separate nutrition from social control. Combining understanding this issue with appropriate motivation of the drivers creates a good basis for effective prevention measures.

### Problem:

One of the important factors in maintaining mental and physical abilities for truck and bus drivers is adequate nutrition. Their tendency towards unhealthy nutrition and obesity is described and discussed, however the database is overall small. But in order to develop prevention measures it is necessary to learn much more about their actual nutritional status.

### Method:

In the context of the international motor show for commercial vehicles (Hannover, Germany 2002) we carried out 390 interviews with truck and bus drivers to collect personal data (like weight and height, etc.), nutritional habits and opinions. As a control group we chose a group of administrative employees, that was comparable in the distribution of age and sex (fig. 1).

**fig. 1:**

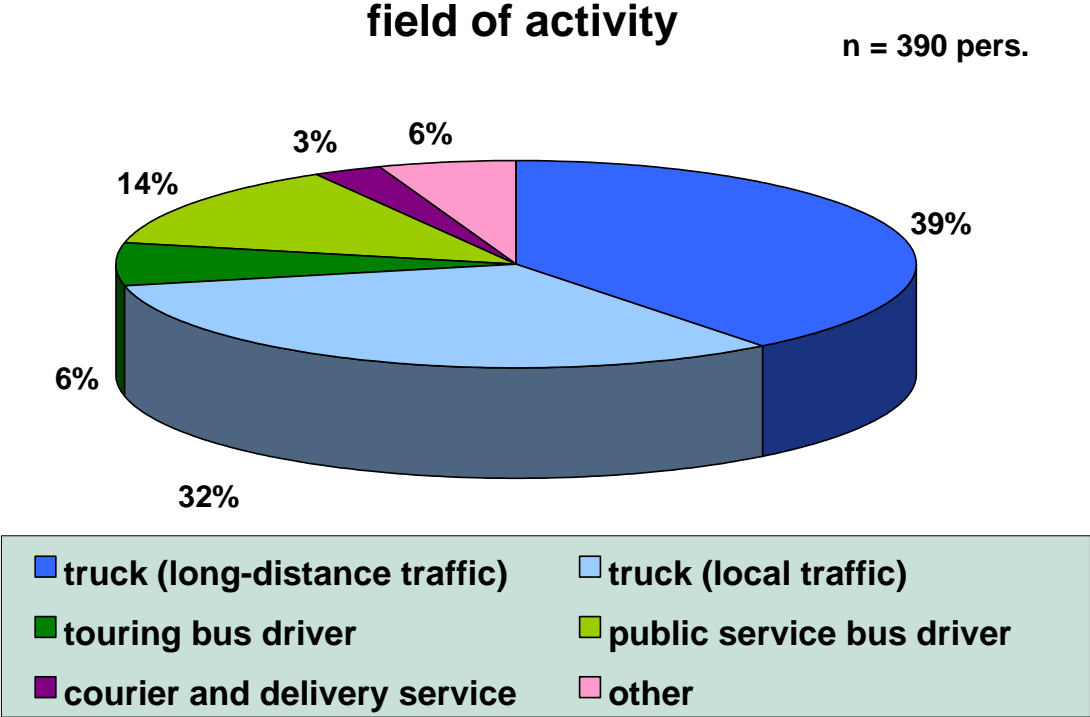
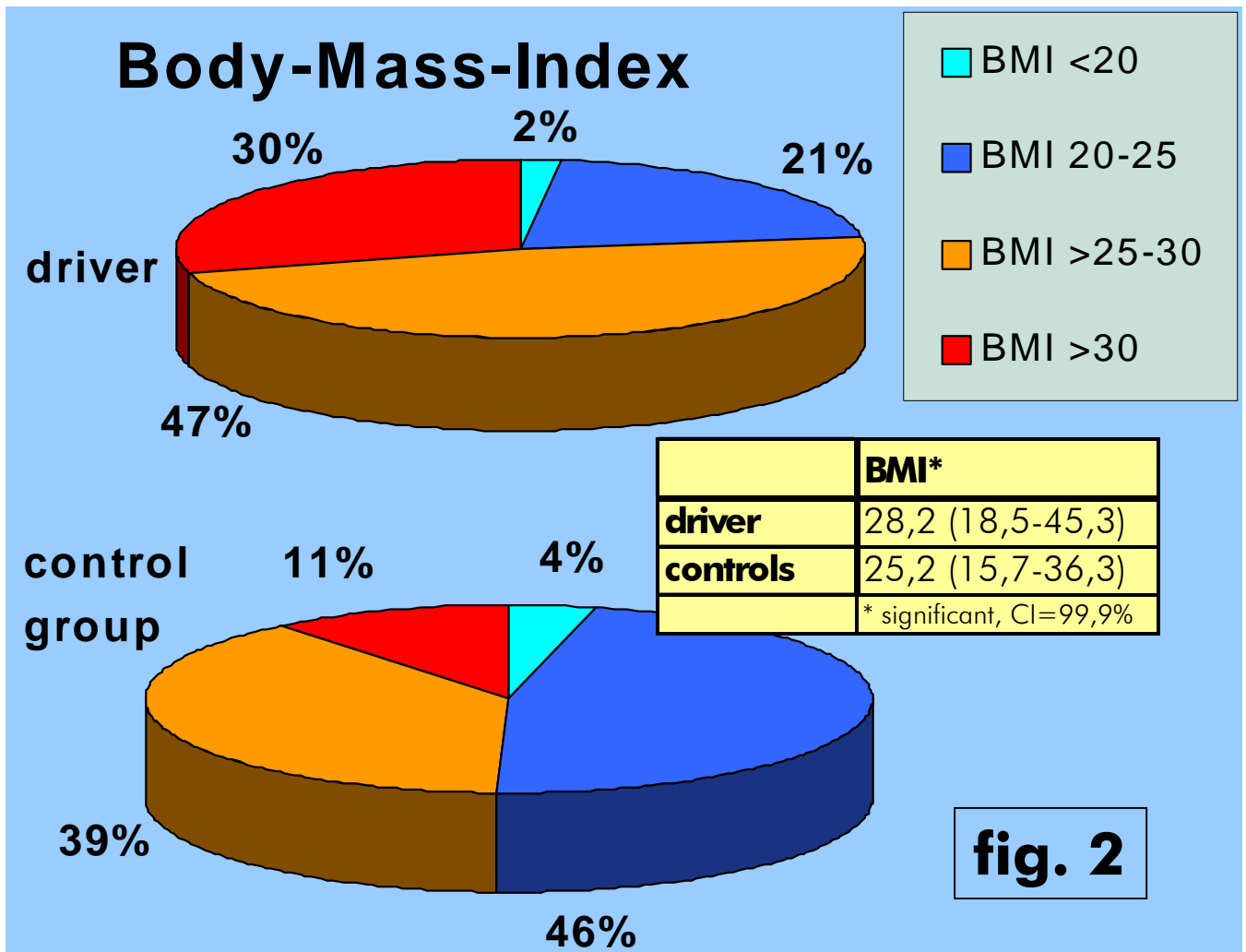


fig. 2: Body-Mass-Index (BMI)

The empirical observation that truck and bus drivers are frequently too heavy, is confirmed by this study. Obesity with a BMI > 25 is also frequent in the control group (50 %) but a rate of 75 % of over-weight drivers demonstrates the importance of this adverse prognostic factor for the health of this group. The difference in the average BMI is highly significant.



	n=	age (y) <sup>1</sup>	height (cm) <sup>1</sup>	weight (kg) <sup>1</sup>	women
drivers	390	41,1 (18-68)	181 (153-205)	91,9 (46-150)	4,1%
controls	102	40,2 (18-65)	180 (155-195)	81,6 (48-115)	2,0%

<sup>1</sup> - average and min/max

fig. 3: Drivers Eat More

Drivers selected explicitly more groceries as "frequently consumed" out of a list than members of the control group, irrespective of the meal type. This does not necessarily permit the conclusion that drivers use a wide spectrum of food, but instead suggests that they consume more food overall.

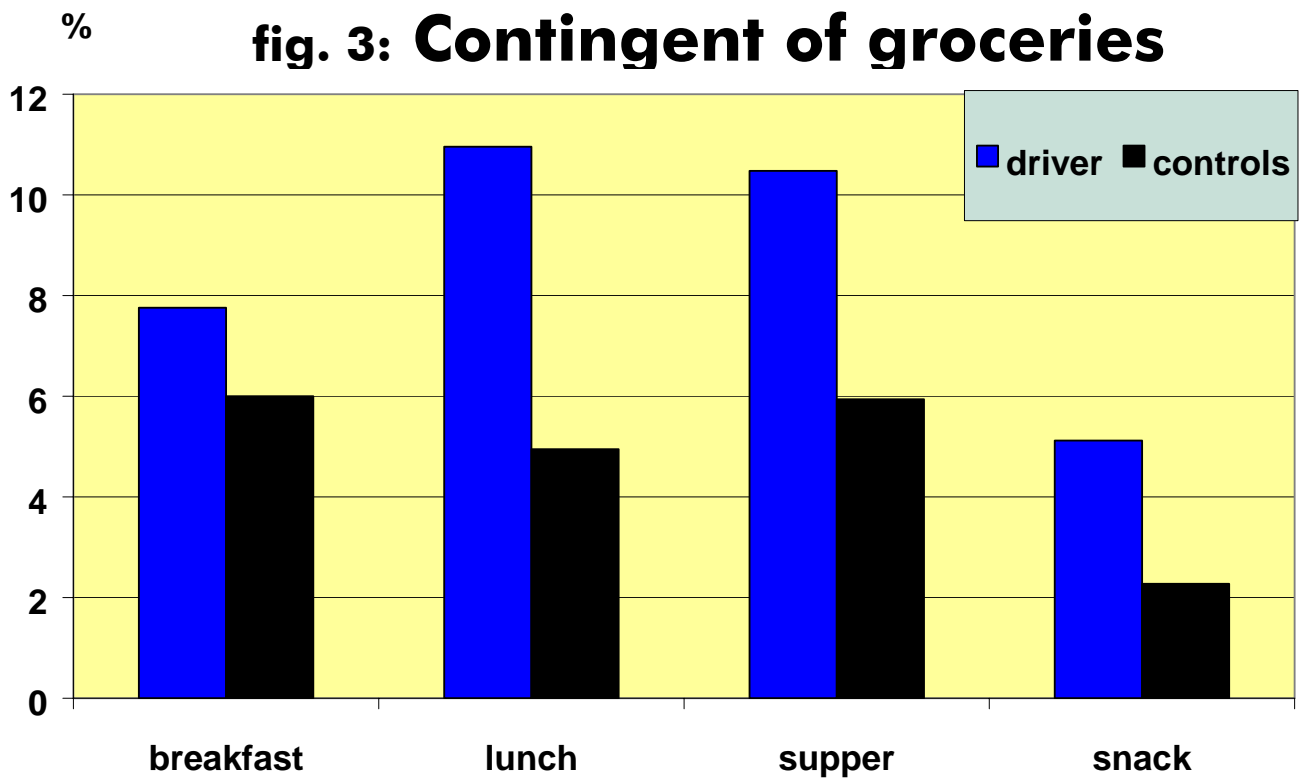


fig. 4: Social Integration

Taking meals "at home" must not automatically imply a good family- or social integration, but taking meals "in the vehicle" or "in the bureau" typically stands for lonely eating besides doing something else (esp. driving). This contributes to a loss of eating culture and consequently to a loss of control of quality and quantity of the meals. For long-distance drivers this is of special concern.

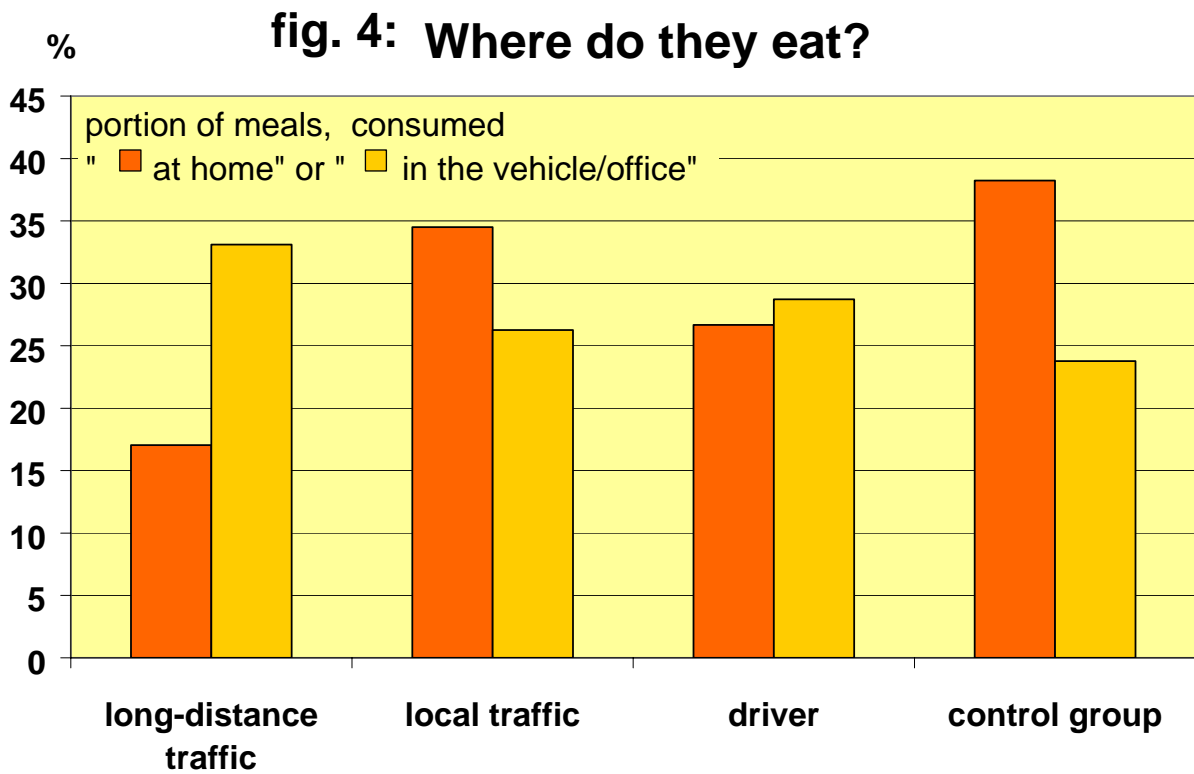


fig. 5: Regular Meals

The regular skipping of certain meals is another hint for a loss of eating culture. On the other hand many more drivers take snacks (may be compensatory), which does not mean that those snacks are always light and healthy.

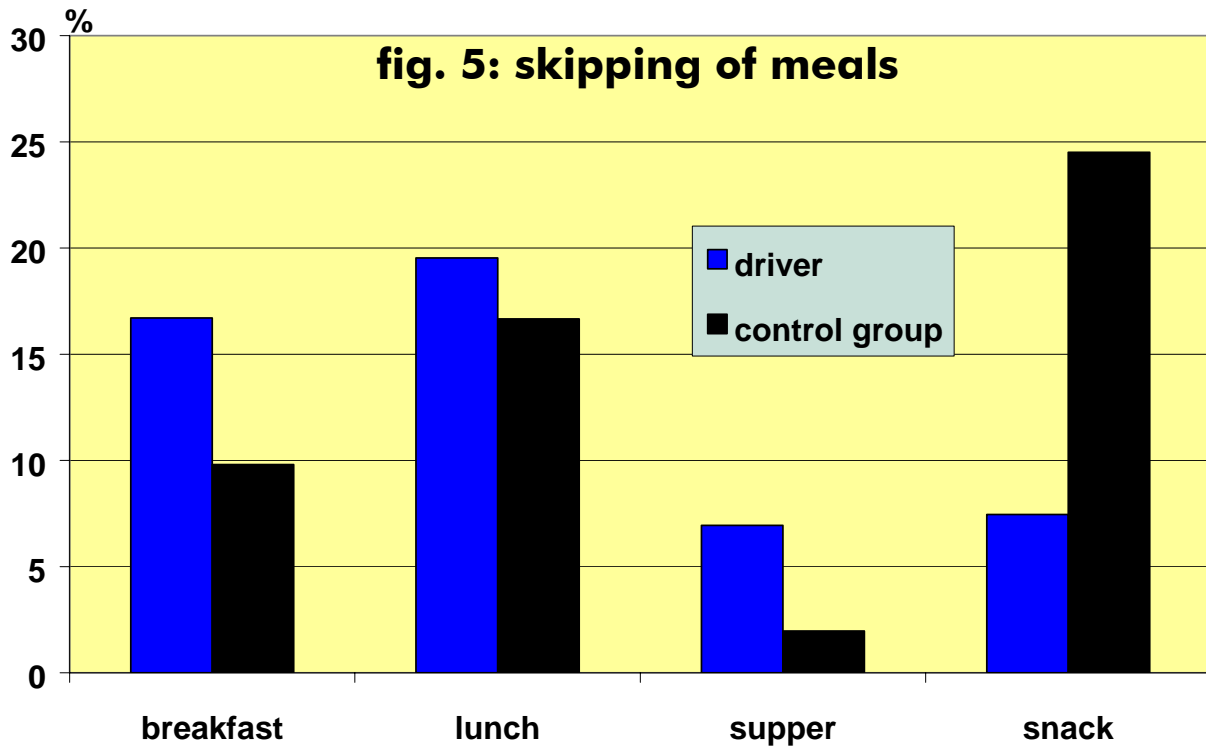
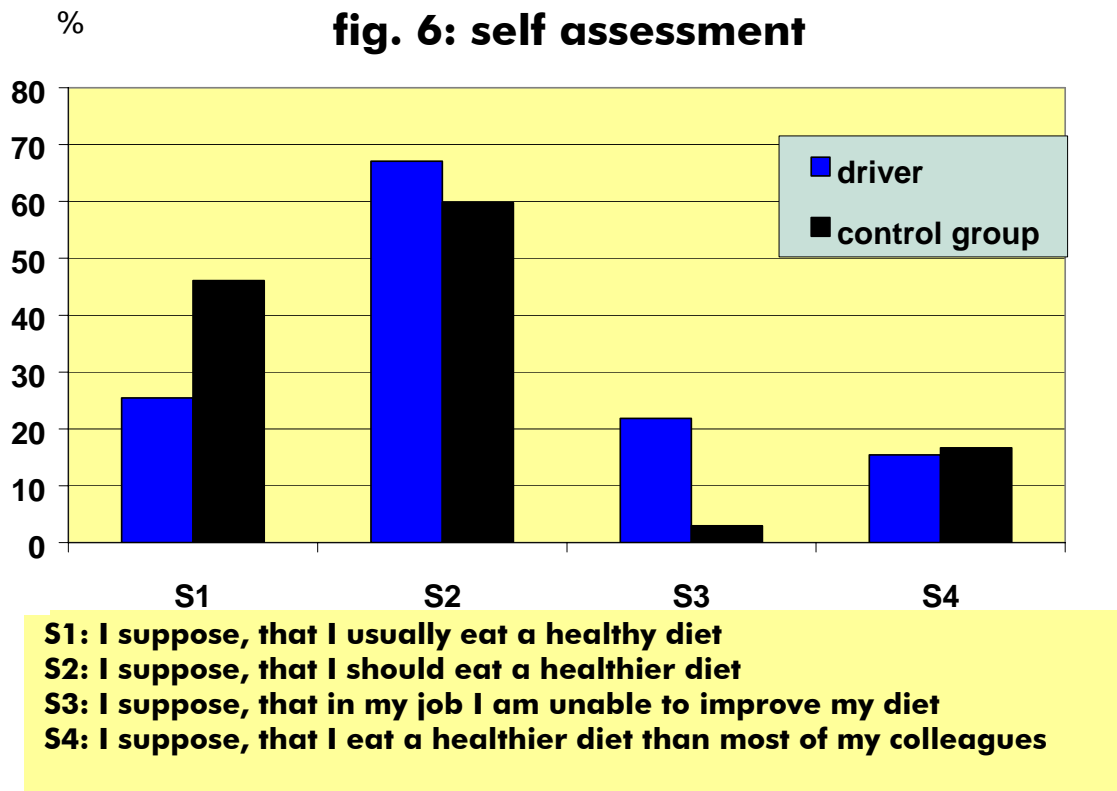


fig. 6: Self Assessment

The need for better nutrition is obvious for most of the drivers. What is missing? Is it the will, the knowledge, or the practical possibility? One of five drivers believes that he cannot eat a healthy diet due to occupational circumstances.



### Discussion:

"Bus and truck drivers in Middle Europe are fat and live on unhealthy food." This statement is a global stereotype. On the other hand, the results of our study nevertheless point to the true core of this empirical observation. Already Helbig and Kuechenmeister (2000) showed, that the body weight of bus drivers in the 50's-percentile is 8 kg higher than the average of the matched total population in Germany. Our findings confirm these results. A set of investigations (z.B. Belkic et al., 1994; Netterstrom & Juel, 1988, 1989, 1990; Rosengren et al. 1991) prove the coherence of obesity and morbidity especially in the group of professional drivers. Using the correlation of daytime fatigue and disturbed night sleep Stoohs et al. (1994) describe an increased accident risk for drivers with adipositas.

The loss of eating culture and therewith the loss of the connection between food intake and social activities contribute considerably to the problem. The time of the meals and the composition of the menu is strongly influenced by stress (Lawton et al. 1998), hunger and fatigue being deciding factors instead of planning and intention.

Understanding of a need for changes in nutrition habits does exist in the group of professional drivers, but most of them fail to convert understanding into action. Qualitatively good nutrition advice and consultation may be a promising approach (Gambera et al., 1995), but the typical occupational conditions must be implicitly taken into account to develop effective preventive strategies.

### Literature:

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