The omission of meat from the diet is known as vegetarianism. This broad definition includes subsets, where practices vary according to the degree of restriction of animal products in the diet. At the mild end of the scale are semi-vegetarians who omit red meat and poultry from the diet. The more extreme practice of vegetarianism, carried out by vegans, requires the consumption of no foods of animal origin. This excludes all dairy products from the diet and often the use of animal products such as leather is avoided.

Vegetarianism is not a new approach to diet as certain religious faiths have forbidden the consumption of meat for ethical reasons for the past 2,000 years. In the past few centuries, however, Britain’s contact with the Indian culture has had an influence on the growth of vegetarianism. The Vegetarian Society was founded in 1847 as an organized body to support and educate vegetarians and, during the twentieth century, the numbers of vegetarians have grown, accelerating rapidly in the 1980s.

The Releat Survey in 1990[1] found that one in ten of the population described themselves as being non-red-meat-eaters and 3.7 per cent of the total adult population claimed to be vegetarian. Females are more likely to be vegetarian than males with the ratio of female to male being approximately two to one. The 1990 Dietary and Nutritional Survey of British Adults[2] showed that men are more likely than women to eat meat and meat products.

The reason for more women becoming vegetarian is not really understood. It may reflect their greater concern for animal welfare, their greater concern for the environment, for example, the cutting down of rainforests to graze more cattle to produce beef, their knowledge of healthier eating or their will to experiment with a range of variable culinary practices.

The work described in this article is an in-depth study of the attitudes to food, food consumption patterns and health of young vegetarian women between the ages of 15 and 30 years and which is described in greater detail in the work of Stagg[3]. Females were chosen for the survey because there are more of them in the vegetarian population and in general they have been found to link strongly diet and health in terms of nutrition[4], while certain physiological demands for certain nutrients, notably iron, are higher than for men.

The method used was a self-completed questionnaire with both open and closed questions which was piloted with ten subjects initially. Although a street trial survey was tried in the beginning, it proved very difficult to recruit sufficient subjects in the category and the length and depth of the questionnaire made its completion difficult. Advertisements were therefore placed in magazines, cafes and health food shops throughout the country, but mainly in the East Midlands area, to recruit enough volunteers.

A total of 350 questionnaires were distributed and 174 were returned, giving a response rate of 49.7 per cent. Of the questionnaires received, 81 per cent were from shop and cafe advertisements and 19 per cent from magazine pledges. The questions were coded and the data arranged in a spreadsheet format for analysis (Quattro Pro, Borland Scotts Valley, California, USA); χ² statistical analysis was applied where appropriate.
RESULTS
The total sample was broken down by age, as shown in Table 1.

Vegetarian Category
The majority of respondents (59.8 per cent) were lacto-ovo vegetarians, with 25.9 per cent semi-vegetarians. Vegans were 8.9 per cent of the respondents. The vegetarians not falling into these named categories included two who omitted eggs and meat but consumed fish, and one excluding red meat and dairy products but consuming poultry and fish.

Period of Being Vegetarian
Of the respondents 39.1 per cent had been vegetarian for six years or more and 12.6 per cent less than one year. The remainder fell between one and five years (48.3 per cent). When the period of being vegetarian was graphed with vegetarian category it was found that those being vegetarian for less than one year are likely to have fewer restrictions in their diet, such as semi-vegetarians or lacto-ovo vegetarians. All vegans had been vegetarians for three or more years, reflecting the large degree of commitment present when a highly restricted diet is undertaken.

Change of Vegetarian Category
When asked if they had changed their “vegetarian category” during their time of being a vegetarian, 28.7 per cent of respondents stated that they had changed category, this being more likely after being vegetarian for three or more years. Of those changing category, 89.7 per cent changed to a more restricted diet, the most popular change being from semi-vegetarian to lacto-ovo vegetarian. This suggests a “vegetarian career” in those respondents, where restriction of animal products from the diet increases as motivations for a vegetarian diet intensified. Of those changing category, 12.3 per cent changed to a less severely restricted diet, especially from being vegan to a more liberal diet.

Personal Relationships
The personal relationships of the respondents were related to vegetarian category. No vegan or lacto-ovo vegetarian lived alone or in a “partner and family” household. The general conclusion which can be drawn from this is that as dietary restriction increases so does the likelihood of living with friends, a partner or another arrangement such as living with a sister, decreasing the likelihood of living with parents. This is supported by the work of Freeland-Graves et al.[5] who also showed that vegans were unlikely to live alone and suggesting that group support is of great help to those on a restricted diet.

90 PER CENT OF RESPONDENTS COOKED FOR THEMSELVES

Of parents cooking meals for respondents, 69.2 per cent were not vegetarian. This makes it difficult to pursue a restricted diet as the ingredients and meal types constituting a balanced vegetarian diet may be quite different from a diet containing meat. When asked who was involved in the cooking of meals it was evident that nearly 90 per cent of respondents cooked for themselves. In those households with partners, some 25 per cent of partners were involved in the cooking of the women’s meals although not all those partners were vegetarian. This fact is of some significance since those concerned in the cooking and planning of meals need a sound education in the provision of nutritionally balanced meals for the vegetarian.

Factors Influencing the Decision to Become Vegetarian
On a scale of 1 (important) to 5 (irrelevant), seven factors influencing the decision to

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<tr>
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<td>17-19</td>
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TABLE I. Age of Sample
become vegetarian were measured: namely, concern over animal welfare, religion, state of health, preference for unprocessed foods, enjoyment of vegetarian food, dislike of meat or other reasons. The results are shown in Figures 1 and 2.

Animal welfare was considered by 81 per cent of respondents to be of great importance in their decision to become vegetarian. Religion was not considered important with 91 per cent replying that religion was irrelevant. On the subject of health, there was no distinct pattern of importance, 21 per cent replying that it was irrelevant. Other moral and health factors mentioned included food distribution and the Third World, energy conservation, environmental problems, peer pressure and slimming effects of the diet.

The food factors appeared to be less distinctive than moral and health factors in their influence on choosing a vegetarian diet (Figure 2). The dislike of meat appeared to be reasonably unimportant, 37 per cent replying that it was an irrelevant factor, although it was seen to be important by 22 per cent of respondents. The preference for unprocessed foods followed a similar pattern, while the enjoyment of vegetarian foods was expressed by 37 per cent of respondents as being an important factor, the numbers of respondents decreasing as importance decreased. Other food factors put forward as influencing motivation towards a vegetarian diet were the economy of vegetarian foods and concern over meat additives.

Other Lifestyle Factors
The percentage of respondents who smoked was 28.2, and this was related to vegetarian category: 47 per cent of vegans smoked, mainly three times a day or occasionally, that is less than a few times per week; only 20 per cent of other vegetarians smoked.

Alcohol Consumption
With respect to alcohol consumption, 13 per cent of respondents abstained completely and the majority (89.6 per cent) had less than one drink of alcohol per day. There was some evidence of higher alcohol consumption in the strictest vegetarian group (vegans) but this was not significant. Indeed no significance was found between alcohol and smoking when related to vegetarian category in the $\chi^2$ analysis of the data.

The results here do suggest vegan respondents to be more likely to drink and smoke than other categories. These results differ from those of other research[6,7,8], where alcohol and smoking were found to decrease in use as abstinance from animal products increased. This difference in results may be attributed to the small sample size in this study, or possibly the personal, health-conscious habits of vegans are changing. Alcohol is becoming increasingly recommended in small amounts as being beneficial to health, while smoking is very
detrimental to health but is increasing alarmingly in younger girls.

Smoking is used to relieve ‘‘stress’’ and it may be that vegans are more susceptible to ‘‘stress’’ because of the severity of their dietary restrictions. It may, however, be the case that vegan respondents are less health conscious than previously found. Further work in this area is obviously required.

References


3. Stagg, T., ‘‘Dietary and Personal Practices of Young, Female Vegetarians’’, BSc Hons project, University of Nottingham, 1992.


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