Type 2 diabetes: First messages in diet and lifestyle

Brenda Purnell

Article points

1. A common concern of individuals with diabetes is that they feel they are given conflicting information on diet.
2. The provision of first messages is an educational process.
3. First messages in diet and lifestyle need to consider age, gender, culture and socio-economic group.
4. Individualised, tailored care – rather than 'blanket' advice – using competence-based skills and educational tools may be the way forward.

Key words

- Diet
- Lifestyle
- Weight management

There are extensive, evidence-based nutritional recommendations for the dietary management of people with diabetes. These cover the continuum of dietary care needed by individuals with diabetes from diagnosis and along their life journey with diabetes. It is important that they are translated accurately into a person's real life in a practical and flexible way to empower them, especially as people with diabetes find food and lifestyle change the hardest aspect of their treatment for diabetes (Diabetes UK, 2001). This article outlines a stepped approach to providing first diet and lifestyle messages and explores the issues that challenge the GP practice team in delivering these messages with regard to meeting the varying social and cultural needs of the newly diagnosed adult with type 2 diabetes.

Many GP practice teams have concerns that the initial dietary advice that they provide is accurate, consistent and evidence based. Similarly, a common concern of individuals with diabetes is that they feel they are given conflicting information on diet (Diabetes UK, 2001).

A competence- and skills-based approach

Providing information alone is insufficient without the means to put knowledge into practice. New approaches using behavioural change skills, motivational interviewing skills and competence-based practice to address ambivalence to change and to provide information exchange, rather than advice giving, are suggested by recent meta-analysis (Hettema et al, 2005) to be more effective.

Phase I of the Diabetes Competence Framework (Skills for Health, 2005) was launched in October 2004. Included in this framework is a competence for first messages in diet entitled *Help an individual understand the effect of food, drink and exercise on their diabetes*. The competence includes the four key elements of delivering first messages: gathering information, assessment, providing education and agreeing a dietary plan.

Preliminary assessments

The provision of first messages is an educational process. According to Parkin (2001):

> *'Many initial educational strategies rely on health professionals' perceptions of what patients with diabetes need to know.'*

However, in the author's experience, people are more interested in the 'nitty-gritty' of living with diabetes at this time and may not be ready to focus on more complex health issues.

A six-step approach to providing these first messages is outlined below and elaborated upon in *Table 1*.

- **Step 1:** Assess the individual's first concerns regarding diet and lifestyle.

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Table 1. A six-step approach to providing first messages in diet and lifestyle (based on the author's experience).

1 Assess the individual's first concerns regarding diet and lifestyle

A key concern of people with newly diagnosed type 2 diabetes is dealing with the symptoms of hyperglycaemia at diagnosis (although as people are diagnosed earlier this is becoming less of an issue). Many people drink large amounts of sugary fizzy drinks, high-energy drinks, fruit juices or milk in an attempt to restore energy and to alleviate a dry mouth.

- Fruit juices increase blood glucose, so it is good advice to keep to just one 150 ml glass of fruit juice with food.
- Water and sugar-free squash drinks can quench thirst.
- It may be beneficial to back up advice to avoid sugary drinks to 'restore energy' with education on the causal effects of the tiredness and the benefits from diet and lifestyle change.

Weight is another major anxiety for people with type 2 diabetes and a particular concern for them at diagnosis. The average body mass index at diagnosis is 28–29 kg/m^2 (Diabetes UK, 2004). Weight is a sensitive issue and more than 50% of individuals have psychological stress and anxieties about their weight at diagnosis (Clark, 2005).

Additional first concerns relate to day-to-day issues with food choices (such as shopping, food labels, budget for food and eating out with friends and family) and work issues (such as shift work). Issues with food choice can be quite complex and referral to a dietitian may be needed.

2 Assess the individual's preconceived ideas about diet and diabetes

People with newly diagnosed type 2 diabetes may have already received conflicting and contradictory advice from well-meaning family and friends. Common erroneous messages include giving up all foods that contain sugar, eating biscuits every few hours and avoiding bananas.

This may mean that individuals have received inaccurate information about how food relates to their own diabetes. An individual's dietary needs change with the progression of type 2 diabetes.

For instance, the majority of people starting on diet alone or metformin do not need to eat snacks between meals to avoid hypoglycaemia and can manage with fruit alone. In fact, the biggest challenge in type 2 diabetes is ensuring that the blood glucose is back in the normal glycaemic range before the next meal is eaten. Further along the diabetes journey, when higher doses of combined oral hypoglycaemic therapies are started, a snack may be needed if meals are delayed or the person is more active. So comparing 'diet notes' is inappropriate, because any discrepancies may simply be due to differences in treatment type.

Healthcare professionals often feel that dietitians are giving conflicting advice when dietary plans differ between people with type 2 diabetes, but it is important to remember that a dietitian is producing a plan that matches the person's needs for his or her stage of diabetes.

- **Step 2:** Assess the individual's preconceived ideas about diet and diabetes.
- **Step 3:** Recognise the importance of health beliefs and other psychosocial issues.
- **Step 4:** Assess the individual's readiness to change.
- **Step 5:** Assess the individual's ability to self-manage and the support system.
- **Step 6:** Assess the individual's levels of literacy for written information.

Essential first messages for a basic dietary plan

First messages on food should, in the author's opinion, always start with a focus on enjoyment and be delivered in a positive way rather than the language of 'should not' and 'avoid'.

A healthy way to eat

The Balance of Good Health (Wired for Health, 2005) provides a food group and

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1. First messages on food should always start with a focus on enjoyment and be delivered in a positive way.

3 Recognise the importance of health beliefs and other psychosocial issues

Health beliefs and perceptions of weight are important factors in diet and lifestyle change, especially in people from minority ethnic communities (Department of Health [DoH], 2005b). Studies (e.g. Skinner et al, 2002) show that South Asian people have a tendency to not see their diabetes as a chronic condition threatening their health. Fasting and feasting has a large influence on diet and lifestyle change and barriers include social gatherings, trips to South Asia, fertility and 'aches and pains'.

Clark (2005) listed more extensively the issues of 'health literacy' and the problems with health communication, which included:

- assessment of recall of facts and understanding
- adherence concepts
- coping with a chronic disease
- beliefs on the illness's cause and consequences
- personal models of illness
- responsibility for care and issues of cure.

4 Assess the individual's readiness to change

The stages of change model describes how people move through a series of stages (precontemplation, contemplation, preparation, maintenance and action) when trying to change behaviour (Prochaska and DiClemente, 2005). A different approach to first messages is needed for those people who are considering change (such as looking at the pros and cons of change) than for those people between the preparation and action stages. For those resistant to dietary change, it may be worthwhile referring them to a dietitian, because of his or her expertise in motivational and behavioural techniques in this area.

5 Assess the individual's ability to self-manage and the support system

Expert groups have endorsed the concept of self-management, the need for supported self-care, and the importance of the family (DoH, 2005b). Social support is important as 'a buffer against emotional distress' – perhaps as vital as medication. Some areas have set up support lifestyle infrastructures that are based on public health models and provide access to walks programmes, leisure centres and healthy cafes in healthy living centres (such as the 'Tameside model').

6 Assess the individual's levels of literacy for written information

Language is often portrayed as a main barrier to learning. A recent Diabetes UK report (Dixit, 2004) concluded that there is a lack of available linguistic and culturally appropriate information about food choices and diet management for minority ethnic communities.

portions approach to learning about food and can be easily adapted to show healthy eating for people with type 2 diabetes. The model is about food choice and not about food exclusion. The food groups and portions approach to diet (*Figure 1*) covers the amount of dairy products, fruit and vegetables, carbohydrate, protein and fat needed daily to provide good nutrition as the basis of a healthy way to eat. First messages need to emphasise that starchy foods are not fattening and have less than half the calories of fat (Food Standards Agency, 2005c). Foods high in monounsaturated fats, such as olive, rapeseed and vegetables oils and spreads, can replace foods rich in saturated or polyunsaturated fats. Not adding extra salt to food is of benefit. Furthermore, drinking sufficient fluid is essential; individuals should be aiming to drink between six and eight glasses a day (1.2 litres;

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1. Although healthy eating is a good starting point, first messages in diet for type 2 diabetes need to also cover meal pattern.
2. Eating well for type 2 diabetes starts with shopping for food, and people regularly request help with understanding food labels.
3. The most important message on weight is the benefits that weight loss of 10 kg or a 10 % reduction from current weight has for glucose control, blood pressure and risk of heart disease.
4. For some people, though, the appropriate first message may be avoiding further weight gain.
5. Physical activity has an important role in improving insulin sensitivity.

Table 2. What constitutes 'a lot' and 'a little' (Food Standards Agency, 2005a).

	A little is…	A lot is…
Sugar	2 g or less per 100 g of food	10 g or more per 100 g of food
Fat	3 g or less per 100 g of food	20 g or more per 100 g of food
Saturated fat	1 g or less per 100 g of food	5 g or more per 100 g of food
Salt	0.25 g or less per 100 g of food	1.25 g or more per 100 g of food

Food Standards Agency, 2005b). Finally, it is best to cook food from fresh ingredients if possible.

Although healthy eating is a good starting point, first messages in diet for type 2 diabetes need to also cover the meal pattern, such as the importance of eating regular meals to spread the carbohydrate load over the day and thus reduce peaks and troughs of blood glucose (Thomas, 2003).

Are there any foods to avoid?

Biscuits, cakes and chocolate products marketed specifically for people with diabetes are often still high in fat and calories, and, as such, are not suitable for them (Connor et al, 2003).

In addition, there are quite a few functional foods on the market that claim either to reduce cholesterol or blood pressure or to make people feel well. Reliance on these products is not advised and they should not take the place of healthy food and lifestyle choices or drugs.

Figure 1. An illustration depicting the food groups and portions approach to dietary advice.

Shopping and food labels

Eating well for type 2 diabetes starts with shopping for food. People regularly request help with understanding food labels, and Diabetes UK (2005) has designed a credit card-sized, fold-out pamphlet to do this (*Figure 2*; the free guide is available by calling Diabetes UK's distribution department on 0800 585 088 and quoting 7402 as a product code). *Table 2* also provides a useful guide to interpreting food labels.

Weight management

The most important message on weight is the benefits that weight loss of 10 kg or a 10 % reduction from current weight has for glucose control, blood pressure and risk of heart disease (Connor et al, 2003). For some people, however, the appropriate first message may be avoiding further weight gain.

Referral into a network of support, if one is available, can bring good results. Structured lifestyle programmes which include education, energy reduction, regular physical activity and frequent participant contact can produce long-term weight loss of 5–7 % (Franz et al, 2002).

Central obesity

The metabolic risk attached to abdominal adiposity is illustrated by the International Diabetes Federation's (IDF's) definition of the metabolic syndrome including central obesity as a prerequisite (Alberti, 2005). In addition, the validity of waist circumference as a measure of abdominal adiposity has been shown (Pouliot et al, 1994).

Physical activity

Physical activity has an important role in improving insulin sensitivity (Connor et al,

2003). It can contribute to weight reduction, with energy expenditure through physical activity amounting to up to 20% of total energy intake from food (Thomas, 2001).

For people not currently doing the recommended 30 minutes of moderate daily activity, encourage them to start small amounts of regular activity and build this up to the recommended level.

Walking groups have been shown to work (for women; Williams and Sultan, 1999). Gardening and dancing are among the other appropriate forms of activity.

Innovative approaches may be needed in all population groups. In particular, though, studies have shown that South Asians living in Britain are less active than Caucasians living in Britain, who, in turn, take less exercise than Asians living in India (Dhawan and Bray, 1997).

Table 3. Dietary advice: 'tools for the job'.

- The local Dietetics department may be able to provide a stop-gap information sheet. Alternatively, the department could be asked to vet other sources of information.
- The local trust website (if developed) may include useful information.
- Diabetes UK has produced several relevant information leaflets and booklets (see http://www.diabetes.org.uk/catalogue/food.htm [accessed 07.12.2005]) as well as a weight management pack for practice nurses and GPs (see http://www.diabetes.org.uk/catalogue/education.htm [product code 7502; accessed 07.12.2005]).
- The Food Standards Agency has created a website called *eatwell* (http://www.eatwell.gov.uk/information [accessed 07.12.2005]) that has general advice on healthy eating.

Fad diets

The consensus is that fad diets do not work, and there is only limited evidence to use anything but low-fat diets (Mulvihill et al, 2002; Avenell et al, 2004). It has been shown that people generally eat a similar volume of food from one day to another (Prentice and Poppitt, 1996). To achieve a reduced intake of calories, bulking out meals with whole foods is compatible with good diabetes control, increases satiety and maintains the daily volume of food consumed (Prentice and Poppitt, 1996).

To use or not use the glycaemic index?

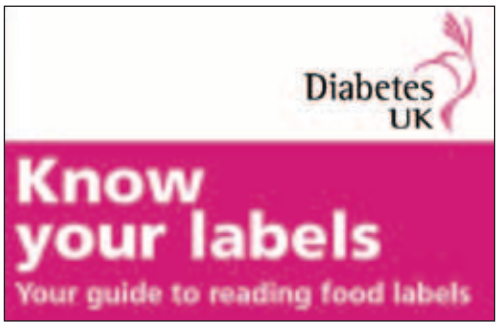
UK guidance (Connor et al, 2003) advises against reliance on glycaemic index (GI) tables, which are easily misunderstood and detract from the important early messages on fat and portions. Furthermore, a recent systematic review (Kelly et al, 2005) challenged the recommendation to use a low-GI approach for weight management on the basis that there is no good quality evidence to do so.

Should messages be different for men?

The Men's Health Forum (MHF; 2005) recently reported on gender inequalities in health. The report concluded the following.

- Men have less knowledge about diet than women, with more confusion about what constitutes a fatty food.
- Men are more likely to drink alcohol to excess.
- Men are less likely to notice weight gain and are often in denial of the problem.

Figure 2. Diabetes UK's fold-out pamphlet designed to help people make informed choices on food and diet.



- Although men are more physically active than women, they still do not do enough to gain health benefits.

The GutBusters campaign in Australia showed that the biggest barrier to losing weight was a lack of basic knowledge about food and weight reduction (MHF, 2005). Men prefer being given information rather than counselling and are less group orientated (MHF, 2005). The MHF report called for 'male-sensitive' approaches, especially in primary care and health promotion.

Should messages be different for black and minority ethnic communities?

Ethnicity in the context of provision of health education and care is a complex issue, with language being just one of the factors (Department of Health [DoH], 2005b).

First messages for black and minority ethnic communities may need a different approach and emphasis. South Asian people are more prone to high blood pressure and renal disease, so fat and salt intakes need addressing early (DoH, 2005a). These problems are exacerbated by obesity, and the IDF's definition of central obesity gives a lower cut-off for South Asian men (90 cm) than Caucasian men (94 cm; Alberti, 2005).

Multiple deprivation, poverty and racism strongly influence the determinants and outcomes of health, and this can have an impact on the effect of health interventions and the access to healthcare in black and minority ethnic communities (DoH, 2005a).

Tools for the job

A list of potentially useful 'tools for the job' is given in *Table 3*.

Concluding remarks

The GP practice team is best placed to provide first messages in diet and lifestyle and often already knows the person who is newly diagnosed. As dietetic expertise shifts into specialist and complex care for when problems arise, the onus on comprehensive first messages falls more and more on the GP practice team. First messages in diet and lifestyle need to consider age, gender, culture and socio-economic group. Individualised, tailored care – rather than 'blanket' advice – using competence-based skills and educational tools may be the way forward.

Finally, knowledge of the first messages provided in this article could serve as a useful basis for local structured education initiatives on diet; they may also be useful to help people on a one-to-one basis who are unwilling or unable to attend these initiatives. ■

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