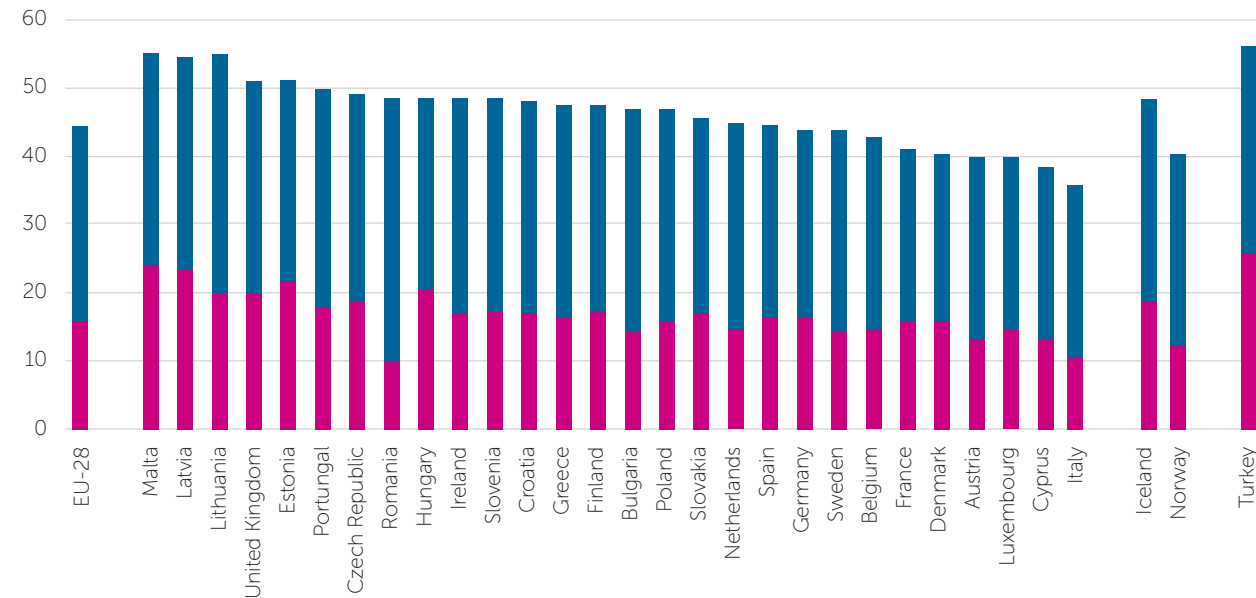


A GUIDE TO **TOTAL DIET REPLACEMENT & MEAL REPLACEMENT PRODUCTS**



INTRODUCTION

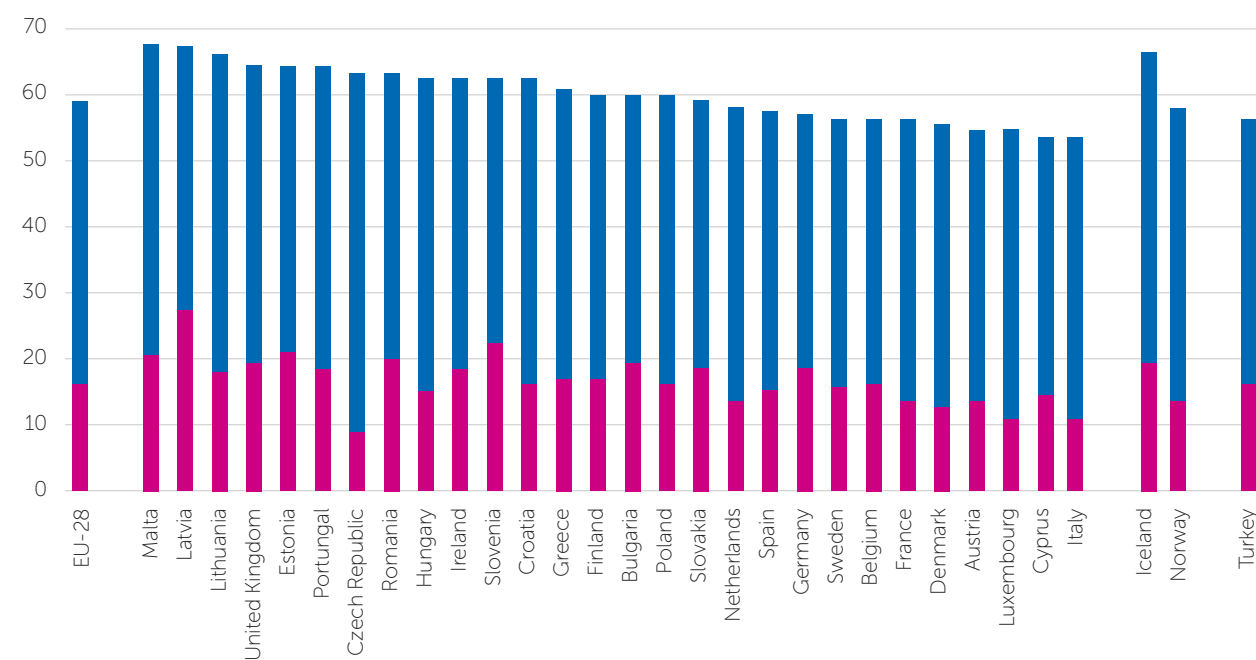
Proportion of overweight and of obese women, 2014



Note: population aged 18 and over

Overweight Obese

Proportion of overweight and obese men, 2014



Note: population aged 18 and over

Overweight Obese

According to the World Health Organization, obesity is "one of the greatest public health challenges of the 21st century". Its prevalence has tripled in many European countries since the 1980s, and the number of those affected continues to rise at an alarming rate. Based on the latest estimates, up to 70% of the entire population is overweight, with 10 to 30% of the European adult population being obese. Over 40 serious health conditions are linked to obesity, ranging from type 2 diabetes to cardiovascular disease, osteoarthritis, liver disease, obstructive sleep apnoea and an increased risk of cancer. This imposes huge costs on the Member States' health services and the wider economy, with millions of working days lost due to weight-related illnesses.

The costs to health services of treating the resultant ill health are estimated to be in the region of 7% of total health care expenditure in Europe, with the indirect costs due to loss of productivity, adding as much again. Overall obesity costs the EU Member States around €59 billion a year from indirect health care costs alone. However, the broader economic impact could be as high as €118 to €236 billion, with rising childhood obesity auguring badly for the future.

Whilst it is generally accepted that the main cause of obesity is the consumption of more energy than we expend, there are limitations in the quantity and quality of information available to the public regarding effective methods for addressing obesity and overweight. Indeed, too often the focus has been on preventing obesity, a worthy aim in itself but one that often comes at the cost of focusing on those millions who are already obese. It is the treatment of millions of people who, unless action is taken now, will represent a serious challenge to the long-term financial viability of the Member States' health systems.

There are a number of different methods currently used to help overweight and obese people to lose weight, from increased exercise and participation in slimming clubs through the use of commercial formula diets or drugs, and, in an increasing number of cases, surgery. In choosing the right option, different factors have to be taken into account: the amount of weight to lose, the general health and fitness of each individual and the cost-effectiveness of the proposed solution, as well as personal preferences.

Total Diet Replacements (TDRs) (which include formula low calorie diet (LCD) and very low calorie diet programmes (VLCD)) and meal replacement products (MRPs) from responsible manufacturers are an economical, viable and effective solution to fill the gap between weight loss advice (and the very limited number of obesity drugs available), which is often used for smaller weight loss (8-10kg), and bariatric surgery for larger weight losses (25-40kg).

TDRs and MRPs - freely available within the EU market for more than 30 years now - provide an effective way of helping overweight and obese individuals to lose weight more rapidly than would otherwise be possible. To tackle obesity properly, public health professionals and policy makers need to develop a greater understanding of the relevance, role and application of TDRs and MRPs, their effectiveness and their cost-effectiveness.



UNDERSTANDING TOTAL DIET REPLACEMENT & MEAL REPLACEMENT PRODUCTS

TOTAL DIET REPLACEMENT

Total Diet Replacements, which are formed of VLCDs and LCDs, are specifically formulated programmes which are based around formula foods. These formula foods are nutritionally balanced with key vitamins, minerals, high quality protein, essential fats and fibre and other nutrients, and are designed to replace the whole diet for a period to facilitate optimal weight loss.

The products contain regular food ingredients in dried form, that are typically of a higher quality than off the shelf conventional retail foods (for example PDCAAS >1). They provide controlled energy intake lower than can be achieved with a reduced intake of normal foods.

VLCDs which contain below 800 kcal (3360 kJ) are primarily aimed at those with significant weight problems, typically with a Body Mass Index (BMI) greater than 30. Their low energy level is intended to induce mild ketosis, which reduces hunger whilst effectively burning fat that can be used for energy. VLCDs also encourage a greater initial weight loss which has a great motivational effect.

LCDs, in turn, have a slightly higher energy content between 800 kcal (3360 kJ) and 1200 kcal (5040 kJ) and are aimed at overweight people with a BMI greater than 25.

Both programmes are strictly regulated (see 'Legal framework' below) and provide guaranteed amounts of required nutrition. This gives them an advantage over "normal foods" for those wishing to lose weight: it is almost impossible to maintain nutritional requirements through the consumption of "normal foods" alone once daily consumption falls below 1200 kcal.

Formula-based programmes can be made into shakes or soups, rehydrated meals, bars, porridge, or desserts. There are also ready-to-drink options. Consumers beginning a VLCD or LCD programme can select their daily meals from a range of products and according to their own personal tastes.



VLCDs and LCDs are carefully designed to take into account a large body of scientific research and should consist of compositionally sound food products that provide 100% of the Recommended Dietary Allowances (RDAs), including good quality protein and essential fats. As they are specially formulated to ensure that individuals are provided with the adequate levels of essential nutrients, such programmes are in fact much more effective than cutting calories on any other conventional food combination.

In addition, VLCD and LCD programmes often have both physical activity and behavioural-change components incorporated. Participants can receive individual and/or group support throughout the duration of the programme, learning behavioural techniques which help them to understand their relationship with food and develop new skills to support healthier eating and lifestyle behaviours, including being more active. Participants can also be offered stepped programmes of physical activity which encourage them to develop appropriate activity and increase fitness levels, depending on their current health, weight, age and lifestyle.



MEAL REPLACEMENT PRODUCTS

Meal replacements are products presented as a replacement for one or more meals of the daily diet. They are used alongside conventional food, as part of an energy restricted diet, to facilitate and maintain weight loss.

Meal replacement products (MRPs) are low-calorie meals taken in place of breakfast, lunch or dinner. They contain between 200kcal and 400kcal and come in pre-rationed form. This makes it easier for people who are looking to lose or maintain weight to control their calorie intake, as they no longer need to control their portions like they would need to do with 'normal foods'.

The composition of MRPs is based on the latest scientific research to ensure that products provide consumers with nutritionally complete meals, while promoting weight loss and weight management.

MRPs contain protein, carbohydrates and fat and are also fortified with multiple vitamins and minerals. This makes MRPs a healthier alternative to more conventional dieting methods through 'normal foods', as the intake of adequate levels of essential nutrients is guaranteed.

MRPs can be made into, among other things, snacks, bars, drinks and soups. Shakes are available in a pre-made form or powder, and in a variety of flavours. MRPs are general foods. They are simple and easy to prepare, making it easier to achieve weight loss or maintenance on the go.



TDRs and MRPs are governed by European legislation and relevant international and national standards. While TDRs are regulated through Regulation on Foods for Specific Groups (609/2013/EU), MRPs are regulated under general food law and can bear specific claims, also regulated by EU provisions.

Nutritional requirements for TDRs are currently provided by the Energy Restricted Diets Directive 96/8/EC which will be replaced by Commission Delegated Regulation 2017/1798 supplementing Regulation (EU) No 609/2013 of the European Parliament and of the Council as regards the specific compositional and information requirements for total diet replacement for weight control.



HOW ARE THESE PRODUCTS USED?

Commercially available TDR programmes are aimed at healthy individuals who do not suffer from any serious medical condition. Responsible providers have protocols in place to ensure that clients can only participate in appropriate programmes if they do not have any listed contraindications, and which instruct referral of the client to their doctor if necessary (e.g. pregnancy).

It is worth noting that many providers will offer such programmes through specially trained, accredited consultants and customer-facing employees, who provide initial screening and advice to clients. These individuals provide extensive individual and/or group out-of-hours support, which is a major factor in maintaining motivation and helping to achieve long-term maintenance of weight loss.

There are significant differences between the health systems of the Member States and access to a healthcare professional is not always straightforward in many countries. Even when access is more readily available, healthcare professionals often have limited time to spend with patients, especially with those who do not present with any specific medical conditions, other than being overweight or obese. Having specially trained individuals supervising these diets is therefore much more desirable, given the already limited resources available in public health systems.

THE EFFICACY OF TDR & MRP

The increasing evidence base within the scientific literature regarding the efficacy of TDRs and MRPs, in addition to the changing face of obesity in Europe in which one in ten individuals is morbidly obese, increases the need for more rapid and clinically beneficial weight loss solutions. All of these factors combined indicate that such programmes are gradually becoming more widely accepted. Some well documented benefits of TDR programmes include:

- Weight loss rates of up to 2 kg per week.
- Weight loss maintenance in compliant individuals of more than 10% of initial body weight loss.
- Recent studies have shown that TDR programmes can result in remission of type 2 diabetes
- Many health benefits have been demonstrated including those observed following weight loss in individuals with osteoarthritis, obstructive sleep apnoea (OSA) and psoriasis.
- Elderly obese people with knee osteoarthritis using VLCD and LCD diets have achieved weight losses of around 12 to 14kg with symptom improvement and more than half of them have been able to maintain around 10kg weight loss for four years.

VLCDS, LCDS ARE NOT 'FAD' DIETS

Magazines and the internet are full of articles about the latest 'fad' diets, from protein-only diets to cabbage soup and other reduced calorie diets. Unlike LCDs and VLCDS, these fad diets tend to use combinations of conventional foods and as such do not fall under European legislation. This means that in certain circumstances, they may present considerable risks to maintaining good health, particularly as they are not always specially formulated to ensure that individuals are provided with the adequate levels of essential nutrients. In contrast, LCDs and VLCDS are regulated at EU, international and national level, and do not require consumers to sacrifice or risk their intake of essential nutrients to achieve weight loss.

- The effects of obstructive sleep apnoea were reduced in severity by weight loss with VLCD followed by maintenance for one year in men with severe and moderate OSA.
- The severity of the skin damage in psoriasis was significantly reduced by weight loss with LCD and those who completed a one year weight maintenance programme maintained their skin improvement.
- Improved quality of life.
- Cardiovascular risk factor profiles are improved. This has been shown in obese people with osteoarthritis and psoriasis.

Furthermore, data obtained from administration of formula-based weight loss programmes in both a primary care setting and from that administered by self-referring individuals in a community setting shows that the use of formula-based weight loss to be an effective, well-tolerated and cost-effective solution.

Some well documented benefits of MRPs include:

- Weight loss rates of up to 17kg in 24 weeks (<https://www.nature.com/articles/nutd201732>)
- Significantly better weight loss on a meal replacement diet plan compared to a food-based diet plan (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2851659/>)
- Improvements in a number of health-related parameters during weight maintenance, including inflammation and oxidative stress, two key factors more recently shown to underlie our most common chronic diseases (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2851659/>)
- Improvements in blood glucose and insulin levels (<http://spectrum.diabetesjournals.org/content/26/3/179>)
- The nutritional adequacy of MRPs is equal to (except for dietary-fiber intake) and, in the case of some micronutrients have been found to be superior to the conventional diet (<https://academic.oup.com/jn/article/134/8/1894/4688831>)
- People find MRPs easy to comply with and find it easier to dine out on this plan, suggesting longer-term compliance with a weight-loss program (<https://academic.oup.com/jn/article/134/8/1894/4688831>)

CONCLUSION

TDRs and MRPs from responsible manufacturers are safe, effective and cost-effective. They comply with applicable legislation and have a proven track record of helping people lose weight and subsequently maintain their weight loss. Given Europe's obesity pandemic, it is absolutely essential that health professionals and policy makers gain a better understanding of the relevance, role and application of TDRs and MRPs, as well as of the role that private weight-management providers can play in helping bring down the incidence of obesity.



ABOUT US

This briefing has been prepared on behalf of Total Diet and Meal Replacements Europe (TDMR Europe), which is a trade body for manufacturers and distributors of formula diet products (both TDRs and MRPs), set up to campaign for appropriate policy and legislative outcomes for slimming foods.

Our members provide weight loss and weight management programmes designed for the overweight and obese based on:

- Very Low Calorie Diets (VLCDS) containing less than 800 kcal per day;
- Low Calorie Diets (LCDs) containing between 800 - 1200 kcal per day; and
- Meal Replacements products containing between 200 - 400 kcal per serving.

Members of the Group currently operate in countries such as Belgium, Cyprus, Czech Republic, Denmark, Finland, Germany, Greece, Ireland, the Netherlands, Poland, Slovakia, Spain, Sweden and the UK

Internationally, our Members' programmes are also available in Australia, Singapore, Malaysia, India, Vietnam, Hong Kong, United Arab Emirates, Kuwait, Qatar, Oman, Kingdom of Saudi Arabia, Bahrain, Jordan, Turkey, Nigeria, Uganda, South Africa and Mexico.

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