Innovations in Obesity Management: Bridging Science and Practice

A report of the CamDocUK AGM held in Crewe, UK on 5 July 2025.

By

Asongazie, C. A.; Chengwa, M; Nkohkwo, A. T.; Ayuk, J; Teke, J; Hazlehurst*, J; Ngatchu, T; Nana, G; Bello, L.F.; Ngah A. M.; Katte, J; Ndzo, J. A.; Ngwa, V; Nkem, E.; Ndenecho, S.J.*

NB:

- *All authors are members of CamDocUK, except *Dr Jennifer Teke (Medway NHS Foundation Trust) & *Dr Jonathan Hazlehurst (University of Birmingham).*
- *No material conflict of interest is declared*
- *For correspondence, email: international@camdocuk.org (Dr A. Nkohkwo)*

ABSTRACT:

CamDoc UK is an association of medical doctors and related medical professionals, originating from Cameroon and based in the UK. This organisation, which began in 2010, meets three times a year (Spring, Summer & Autumn) to discuss health matters and promote health within the UK, Cameroon and abroad.

The 2025 Summer conference (AGM), of over 50 members, held at Crewe Hall in Crewe, Cheshire UK, on Saturday 5th July 2025. The discussions led by a panel of 5 expert speakers focused on obesity (ref. Appendix 1).

Effective management measures discussed included: engaging in physical activity, at least 150 minutes of moderate intensity exercises weekly; eating a balanced and well-regulated meal with less fats and less high calorie dense meals; cooking meals using healthier methods; use of medications and several surgical options where necessary and lastly, continuous medical follow up.

The deliberations, are considered in the context of CamDocUK's on-going campaign (www.CamDocUK.org) on the management of non-communicable diseases.

Introduction:

Obesity is a major global health concern which cannot be overlooked in our world today as cases continue to skyrocket daily. The World Health Organization (WHO) defines obesity as an excessive accumulation of body fat which poses a risk to health (Milanese et al., 2025). One is said to be obese when one's weight measured in kilograms divided by their height in square meters gives a value of ≥30 kg/m^2. This cut-off definition of obesity cases is approved and made use of by authoritative bodies as the WHO, World obesity Federation, Center for Disease Control, etc (CDC, 2024; World Obesity Atlas, 2025).

Statistics from the World Obesity Federation (2024), revealed that in 2020, 2.2 billion adults worldwide (42% of adult population) had a high BMI (which implies they were either overweight or obese) and these figures were projected to rise to 3.3 billion adults (54% of adult population globally) by 2035. According to the current data from the World Obesity Federation, one in seven adults (one billion individuals) have obesity (Jin et al., 2023; World Obesity Atlas, 2025).

The World Obesity Atlas (2025) also reveals that 42% of adult Cameroonians have a high BMI and 16% of the adult population is obese. In the UK, 63% of the adult population have a high BMI and 28% of the adult population is obese.

However, current evidence reveals that BMI does not effectively correlate with adiposity. Reliance on BMI alone will label people who do not have excess fat accumulation (though have a BMI >30) as obese and vice versa which may not be the case (Denworth, 2024). Therefore, the BMI has been increasingly used in conjunction with other obesity anthropometric measurement parameters as the waist circumference, hip circumference, etc in both males and females.

Nevertheless, it is increasingly recognised that measuring tools as the BMI and waist circumference, though give some information about the fat accumulation status, provide no information about the individual's overall health risks or health needs, thus are not comprehensive for clinical decision making (Sharma & Kushner, 2009). This saw the need for the development of tools which will not only seek to properly classify body fat accumulation but also predict health risks and propose management needs for these cases appropriately. One of such tools is the Edmonton Obesity Staging System, which is a useful clinical scale predicting health risks associated with obesity and proposes treatment initiation within groups with high health risks (Atlantis et al., 2020; Kuk et al., 2011).

The development of obesity in an individual is a complex issue as several studies reveal obesity to be a complex acquired health condition stemming from multiple factors such as genetics, learned behaviours, unhealthy eating habits, unhealthy food choices, chronic overeating, environmental, cultural, neurological, psychological factors and low rates of physical activity (Lingvay et al., 2024). Only a combination of these seem to result in the development of a high BMI and consequently unhealthy deposition of fat around body tissues. This resultant fat accumulation within and around body tissues result not only in metabolic complications but also attracts stigmatization of the affected individuals which often affect their mental health and social wellbeing, often leading to deeper psychosocial complications.

Fortunately, obesity is a condition which can be reversed or worked upon in most situations. The following management strategies have proven to be effective as far as curbing or preventing the development of obesity is concerned.

Management of Obesity:

The management of obesity is done considering several factors such as:

- Patient's current BMI

- Presence or absence of associated comorbidities
- Patient's goals – short term vs long term

Management strategies include:

1. Physical activity

It is recommended to increase physical activity to burn excess energy and reduce sedentary behaviour. This is essential not just in losing weight but also because of the other health benefits it can bring (EP weiss et al 2017).

The chief medical officers recommend that adults should do a minimum of 150 minutes of moderate-intensity activity a week or alternatively 75 minutes of vigorous-intense activity a week or a combination of both. Moderate intensity activity is any activity that increases your heart rate and breathing rate such as brisk walking, cycling, dancing and recreational swimming. Vigorous activity includes activities resulting in very hard breathing, rapid heartbeats and one may be unable to hold a conversation such as running and most competitive sports.

To prevent obesity, 45 to 60 minutes of moderate-intensity activity a day is recommended. To avoid regaining weight after being obese, one may need to do 60 to 90 minutes of activity each day, this also varies with intended BMI targets and other factors (EP weiss et al 2017).

2. Diet control

This is aimed at improving dietary intake and making changes to eating patterns and behaviours**.** The goal is to use a flexible and individualized approach to tailor dietary interventions to achieve nutritional balance while reducing energy intake.

Dietary intake is influenced by individual personality and preferences, while eating patterns and behaviours are shaped by several factors such as socio-economic environment, mental health status.

Our cultural customs and beliefs influence how we view food and our bodies, which influences how we manage our weight. Food in most of our cultures is seen as a means of social bonding, a cultural significance and when used in correlation with body size it is used as a measure of physical, socio-economic factors: health, wealth, beauty, strength, social status and fertility.

Understanding these different perspectives could give us insights on how to approach weight management particularly in diverse populations. With these in mind, some of the hindrances one may face while trying to lose weight by diet control include:

- Lack of nutritional and calorie labels: with the interest of the African region and Cameroon in particular, most of our staple foods such as grains, vegetables, and traditional dishes often lack nutritional content labels. This makes it challenging to make informed dietary choices, leading to potential health risks and misconceptions about food value.

- Traditional preparation methods: Most of our traditional food preparation methods are not healthy. Prolonged boiling, frying, spicing and use of voluminous amounts of oils can perpetuate the consumption of unhealthy food options without awareness. This lack of nutritional information may lead to individuals unknowingly eating high-calorie foods that do not align with their health goals.
- Social pressure from how one would be perceived by peers.
- Lack of support.
- Financial circumstances
- Any comorbidities (such as eating disorders, or disordered eating, type 1 diabetes, inflammatory bowels disease, or coeliac disease).

Our interventions should focus on making modifications as per each individual after having understood the different aspects involved.

These include:

- Setting reachable goals and planning how to achieve them
- Finding personal reasons for wanting to lose weight.
- Teaching people strategies to implement changes such as nutrition education, portion control, cooking workshops.
- Health literacy and education
- Cultural values
- Providing support either by family members or support groups
- Addressing misconceptions
- Methods of continuous assessment of progress.

3. **Medications**

There are now medications available which can cause significant weight loss. Orlistat is a tablet that limits that gastrointestinal absorption of fat form within the diet. Side effects often limit tolerability but it can be a useful treatment and is widely available.

Newer GLP-1 agonists or more recent combination GL-1/GIP agonists stimulate the effect of naturally occurring hormones and have a direct effect on the brain reducing appetite as well as on delaying gastric emptying and increased the sensation of feeling full. These medications are given as injections under the skin. Whilst these medications can be effective there are challenges providing access to eligible patients due to funding, the availability of services to provide additional patient support alongside medication and often strict eligibility criteria in different healthcare systems. With time it is hoped that more patients may be able to benefit from such treatments. Medications should be used alongside dietary changes, physical activity and psychological support when required.

4. Endoscopic and minimally Invasive interventions

These interventions for obesity lie in between lifestyle changes including diet and bariatric surgery.

The advantages include:

- Being for short to medium term use,
- Reversible,
- Typically performed endoscopically or via small incisions
- They tend to have lower complications.

Who is a suitable candidate?

- Usually individuals with BMI 30-40 kg/m2
- Failed previous diet /lifestyle interventions
- Suitable for patients with obesity-related comorbidities
- Individuals not suitable or ready for bariatric surgery
- Individuals with no large hiatus hernia
- Individuals with no history of GI surgery, ulcers, or motility disorders.

Common types of interventions

- Intragastric balloons, resulting in 10 - 15% Weight loss
- Endoscopic sleeve gastroplasty - 15 - 20% Weight loss
- Transpyloric shuttle
- Vagal nerve blockade
- Duodenal mucosal resurfacing - Undergoing clinical trials
- AspireAssist - Withdrawn
- Endobarrier - 10 - 15% Weight loss - Not approved
- Gastric Botulinum toxin injection - Not approved

The most used interventions are intragastric balloons and endoscopic sleeve gastroplasty as they lead to 10-20% weight loss, offering safe, effective and reversible weight loss outcomes. For a more effective outcome and patient wellness, it's important to add supportive care to implement changes:

- Nutrition counselling
- Behavioural therapy
- Physical activity plans
- Regular follow-ups with multidisciplinary team

Common risks and complications associated with these procedures include:

- Nausea, vomiting, abdominal pain (most common, temporary)
- Bleeding
- Balloon deflation or migration
- Gastric ulcers
- Perforation (very rare)
- Acute pancreatitis
- Suture failure

- Acid reflux
- Psychological effects (anxiety, unrealistic expectations)

5. Bariatric surgery

These procedures are reserved for persons with BMI>30kg/m2 with or without comorbidities and whose first line interventions have been unsuccessful and have higher long-term outcomes.

Aim:

- Restrictive -reduce stomach size, decreasing appetite, feeling of hunger and increasing satiety.
- Malabsorptive -Induce malabsorption- altering gut hormones and microbiome.

Clinical assessment done via an MDT considering:

- Clinical history
- Co-morbidities
- Drug history
- Previous surgery
- General fitness
- Psychological assessment
- Dietary and nutritional assessment
- Endoscopic assessment-reflex, hiatus hernia.

Types of surgical interventions

- Laparoscopic adjustable gastric band
- Laparoscopic sleeve Gastrectomy
- Roux-en-Y gastric bypass
- One-anastomosis gastric bypass (Mini-GB)
- Biliopancreatic division and duodenal switch (BPD-DS)
- Single anastomosis duodenal-ileal bypass with sleeve (SADI-S)

Complications

- Internal hernia
- Reflux
- Marginal ulcers
- Pulmonary emboli
- Dumping syndrome
- Protein deficiency
- Fat malabsorption and steatorrhea
- Vitamin and micronutrient deficiencies
- Small intestinal bacterial overgrowth
- Band slippage
- Gallstones
- Excess loose skin
- Regaining weight

Supportive care

- Nutrition counselling and support
- Behavioural therapy and regular follow ups

Conclusion:

Obesity continues to be a very concerning health issue in our world today as up to 1 billion people are affected. Obesity is well recognised as a door to several metabolic and chronic disease conditions as cardiovascular diseases, diabetes and even cancers. This is aside the reduced quality of life, physical inefficiency, mental and socially draining effects obesity has been proven to have. Managing and reversing obesity is therefore paramount to regaining health.

Effective measures include engaging in physical activity, at least 150 minutes of moderate intensity exercises weekly, eating a balanced and well regulated meal with less fats and less high calorie dense meals, cooking meals using healthier methods, use of medications and several surgical options where necessary and lastly, continuous medical follow up.

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APPENDIX 1: Obesity Conference Programme, CamDocUK AGM2025, Crewe Hall, Crewe UK.