

Position Statement

European Association for the Study of Obesity Position Statement on the Global COVID-19 Pandemic

Gema Frühbeck^{a, b} Jennifer Lyn Baker^{a, j} Luca Busetto^{a, c} Dror Dicker^{a, d}
Gijs H. Goossens^{a, p} Jason C.G. Halford^{a, g} Teodora Handjjeva-Darlenska^{a, o}
Maria Hassapidou^{a, n} Jens-Christian Holm^{a, k} Susanna Lehtinen-Jacks^{a, l}
Dana Mullerova^{a, h} Grace O'Malley^{a, f} Jørn V. Sagen^{a, i} Harry Rutter^{a, m}
Ximena Ramos Salas^{a, q} Euan Woodward^{a, q} Volkan Yumuk^{a, e}
Nathalie J. Farpour-Lambert^{a, r}

^aEuropean Association for the Study of Obesity, Teddington, UK; ^bDepartment of Endocrinology and Nutrition, Clínica Universidad de Navarra, University of Navarra, IdiSNA, CIBEROBN, Spanish Health Institute Carlos III, Pamplona, Spain; ^cDepartment of Medicine, University of Padova, Padova, Italy; ^dDepartment of Internal Medicine D and Obesity Clinic, Hasharon Hospital, Rabin Medical Center, Petah Tikva, Sackler School of Medicine Tel Aviv University, Tel Aviv, Israel; ^eDivision of Endocrinology, Metabolism, and Diabetes, Department of Medicine, Istanbul University Cerrahpaşa Medical Faculty, Istanbul, Turkey; ^fSchool of Physiotherapy, Division of Population Health Sciences, Royal College of Surgeons in Ireland, Dublin, Ireland; ^gSchool of Psychology, University of Leeds, Leeds, UK; ^hDepartment of Public Health and Preventive Medicine, Faculty of Medicine in Pilsen, Charles University, Pilsen, Czech Republic; ⁱDepartment of Clinical Science, University of Bergen, Bergen, Norway; ^jCenter for Clinical Research and Prevention, Bispebjerg and Frederiksberg Hospital, Copenhagen, Denmark; ^kThe Children's Obesity Clinic, Department of Pediatrics, Holbæk University Hospital, Holbæk, Denmark; ^lUnit of Health Sciences, Faculty of Social Sciences, Tampere University, Tampere, Finland; ^mDepartment of Social and Policy Sciences, University of Bath, Bath, UK; ⁿDepartment of Nutritional Sciences and Dietetics, International Hellenic University, Thessaloniki, Greece; ^oDepartment of Pharmacology and Toxicology, Medical Faculty, Medical University, Sofia, Bulgaria; ^pDepartment of Human Biology, NUTRIM School of Nutrition and Translational Research in Metabolism, Maastricht University Medical Center, Maastricht, The Netherlands; ^qEuropean Association for the Study of Obesity Secretariat, Teddington, UK; ^rObesity Prevention and Care Program Contrepoids, Service of Endocrinology, Diabetology, Nutrition, and Therapeutic Patient Education, Department of Medicine, Geneva University Hospitals and University of Geneva, Geneva, Switzerland

Keywords

SARS-CoV-2 · COVID-19 · Pandemic · Obesity

COVID-19, the infectious disease caused by the coronavirus SARS-CoV-2, was declared a pandemic by the World Health Organization on March 12, 2020. The European Association for the Study of Obesity (EASO), as a scientific and medical society dedicated to the promotion

Gema Frühbeck
Department of Endocrinology and Nutrition, Clínica Universidad de Navarra
University of Navarra, IdiSNA, CIBEROBN, Spanish Health Institute Carlos III
Avda. Pio XII, 36, ES-31008 Pamplona (Spain)
gfruhbeck@unav.es

of health and well-being, is greatly concerned about this global health challenge and its significant impacts on individuals, families, communities, health systems, nations, and wider society.

It may seem counterintuitive that COVID-19, a communicable disease, has such contiguity with non-communicable diseases such as obesity. However, people with obesity have an elevated risk of hospitalization, serious illness, and mortality, likely due to chronic low-grade inflammation [1], an altered immune response to infection, as well as related cardio-metabolic comorbidities [2], and the COVID-19 pandemic is likely to have a significant impact on people with obesity. The lockdowns imposed by many countries, combined with extensive efforts to isolate both vulnerable populations and people with diagnosed or suspected COVID-19 and to quarantine potential contacts, have many consequences for health behaviours and well-being. In the face of this crisis, we will also witness how psychosocial determinants of health, including geographic location, and access to care affect global health in general and people living with obesity in particular. Given that obesity is a prevalent, persistent, serious, complex, chronic, and relapsing disease among the general population [3], it is important that we pay special attention to these challenges especially during the COVID-19 pandemic and when planning management of the aftermath to avoid placing an even greater burden on individuals, health systems, and society over the short, medium, and long term.

As a complement to the immediate and urgent healthcare response it is also imperative to consider potential future health consequences. Pandemics can influence thinking and drive maladaptive behaviours among individuals through cognitive distortion. Quarantine and isolation may increase psychosocial distress in many ways, influenced by duration, the provision of information, fear of infection, social and familial isolation, the availability of supplies, financial hardship, and stigmatization. Several strategies can help reduce the impact of these stressors. In this context, providing detailed and credible information, optimizing remote clinical support, virtual connections to family and friends to increase/support/retain emotional closeness, facilitating entertainment and activities (e.g., books, games, indoor hobbies and physical activity, phones, internet access), and appealing to altruism to validate the efforts of individuals in isolation and quarantine are helpful strategies [4].

Trust is an essential element of taking a rational approach to this crisis. Scientific societies can play a key role in facilitating dissemination of credible, timely information. To respond to urgent COVID-19 healthcare needs, much health service delivery has been restructured, and elective, non-essential medical and surgical procedures have been postponed. This restructuring of health services can preserve personal protective equipment, beds, ventilators, and other material for reallocation in response to the crisis. Bariatric medical and surgical procedures have been among those cancelled, and regular appointments of other non-acute patients have been scaled down, leaving many people with chronic diseases without the appropriate care they need.

The role of EASO is crucial in (1) identifying the particular needs of healthcare providers and persons living with obesity during the COVID-19 pandemic, (2) disseminating science-based information, and (3) sharing knowledge, evidence-based recommendations, and guidance toward the clinical, patient, and policy communities using social and other media, which allow us to reach millions of people across Europe. Fortunately, EASO has many communication channels and can be creative in engaging with our wide constituency and stakeholder communities.

In collaboration with the EASO European Coalition for People Living with Obesity (ECPO), EASO is committed to activating channels to identify the information and support needs of people with obesity, and to respond to those needs in an evidence-based and patient-centred way. EASO and ECPO have actively confronted this challenging situation by sharing best practices, recommendations, and useful tips on how to cope with quarantine measures. To create

these resources, EASO focuses on the four pillars of health promotion individuals can act upon, namely (1) energy intake (including hydration), (2) energy expenditure, (3) sleep, and (4) mental health and resilience. During quarantine, it is particularly important for all of us to maintain psychological well-being (see specific resource on “Practical advice on how to maintain healthy lifestyle habits amidst the COVID-19 pandemic” on the EASO website) [5].

The COVID-19 pandemic will pass, but the challenge to nurture our health in meaningful and feasible ways and to avoid potential collateral effects will remain. For this reason, it is particularly important to work together, supporting communities to prevent and manage obesity, particularly during periods of prolonged lockdown. There are, for example, ways to prevent obesity progression through reduced energy intake if we are moving less; fun and creative ways to increase energy expenditure at home; and psychological strategies to reduce stress, avoid emotional eating, and optimize sleep. Obesity management strategies such as behavioural and medical interventions can also be implemented while in lockdown.

We recognize that people with obesity face many challenges in their communities, including pervasive weight bias and stigma [6]. We have seen an increasing frequency of fat shaming memes on social media, which perpetuate misconceptions about obesity and about people with obesity. EASO challenges weight bias and obesity stigma. Stigmatizing healthcare experiences may cause people with obesity to avoid or delay contacting healthcare providers during this pandemic, which may result in more severe COVID-19 outcomes [7].

Like all people living with chronic disease, persons living with obesity may need continued support to manage their disease during the COVID-19 pandemic. In the absence of physical consultations with healthcare professionals, obesity care may be delivered using telemedicine. EASO can facilitate the delivery of quality care by sharing information and providing recommendations for the development and implementation of virtual telemedical clinical consultations. EASO experts are developing protocols for virtual consultations for patients with obesity during the COVID-19 pandemic, which will be shared on the EASO website.

There is emerging evidence that obesity is associated with significantly higher intensive care unit resource utilization [8, 9] and that critically ill patients with obesity who also have malnutrition experience worse outcomes than patients with obesity without malnutrition [10]. Emerging data demonstrate that people with obesity may also experience more severe COVID-19 symptoms and may be more likely to need complex intensive care treatment. A retrospective cohort study conducted in France found that patients with severe obesity (body mass index [BMI] >40 kg/m²) who contracted COVID-19 were more likely to need invasive mechanical ventilation, independent of age, hypertension, and diabetes [11]. From Chinese data, we have learned that persons with underlying type 2 diabetes, cardiovascular conditions, and hypertension appear to face a greater risk of complications from a COVID-19 diagnosis [12, 13]. Thus, people with obesity who also have diabetes should ensure that they maintain good glycaemic control, as it can help reduce infection risk and severity [14]. People living with both obesity and type 2 diabetes may also need more frequent blood glucose monitoring (through the use of self-monitoring blood glucose devices, for example) and medication adjustment to maintain normoglycaemia to adapt to the new energy requirements of decreased activity and energy intake. In addition, according to a Chinese study, elderly persons (>65 years) with type 2 diabetes were also more likely to be affected by COVID-19 [15]. The most recent data from New York City show that the factors most associated with hospitalization risk were age and obesity (BMI >40 kg/m²), followed by heart failure and chronic kidney disease [16]. This study also found that severe obesity was the strongest risk factor for developing acute respiratory distress syndrome and requiring intubation.

More research is needed to understand the relationships between obesity and COVID-19. In order to conduct appropriate studies, national authorities and others will need to develop accurate surveillance protocols, collecting data on weight, height, BMI, and obesity-related

complications. EASO will continue to advocate for the importance of research and surveillance during and after the COVID-19 pandemic.

Healthcare professionals, national health systems, and policymakers need access to evidence-based information and guidance to meet the healthcare needs of patients with obesity who have been affected by COVID-19. Whether this means having access to the right size equipment for patients with obesity or understanding the medication and nutritional needs of patients who have undergone bariatric surgery, EASO experts will use the emerging data about obesity and COVID-19 to develop relevant resources and guidance. Although at this point, data describing the health effects and impacts of COVID-19 on obesity during lockdown, quarantine, and self-isolation during the short, medium, and long term are scarce, EASO will mobilize its expert membership to contribute to novel and high-impact research and support tools related to COVID-19 and obesity.

The issues discussed in this position statement have important implications for health systems, people living with obesity, and society. Our global ability to adapt to the demands of the pandemic will be determined by our willingness to develop resilient systems that are particularly protective of high-risk individuals and vulnerable populations. EASO is a trusted society well positioned to help and with the capacity to assist. Health equity is embodied in all EASO activities. Together with our task forces, scientists, persons living with obesity, and the clinical care community, we are all working toward the same goal – improving population health. EASO will leverage and mobilize its resources in efficient ways to empower persons living with obesity and to support governments in promoting behaviours, practices, and policies which support health and well-being for all during the present lockdown and beyond. As a catalyst for change and a convener, EASO will continue to work with our many partners to research, educate, and advise the general population, people living with obesity, healthcare professionals, and policymakers on how to take achievable action during these challenging times.

Disclosure Statement

All authors declare no conflict of interest in the development of this position statement, which was authored under the auspices of EASO. All authors are members of the Executive Committee of EASO and receive no funding for that role.

References

- 1 Ellulu MS, Patimah I, Khaza' ai H, Rahmat A, Abed Y. Obesity and inflammation: the linking mechanism and the complications. *Arch Med Sci*. 2017 Jun;13(4):851–63.
- 2 Green WD, Beck MA. Obesity altered T cell metabolism and the response to infection. *Curr Opin Immunol*. 2017 Jun;46:1–7.
- 3 Frühbeck G, Busetto L, Dicker D, Yumuk V, Goossens GH, Hebebrand J, et al. The ABCD of Obesity: An EASO Position Statement on a Diagnostic Term with Clinical and Scientific Implications. *Obes Facts*. 2019;12(2):131–6.
- 4 Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet*. 2020 Mar;395(10227):912–20.
- 5 European Association for the Study of Obesity. COVID-19 and obesity. 2020. <https://easo.org/covid-19-and-obesity> [accessed April 15, 2020].
- 6 Rubino F, Puhl RM, Cummings DE, Eckel RH, Ryan DH, Mechanick JI, et al. Joint international consensus statement for ending stigma of obesity. *Nat Med*. 2020 Apr;26(4):485–97.
- 7 Alberga AS, Edache IY, Forhan M, Russell-Mayhew S. Weight bias and health care utilization: a scoping review. *Prim Health Care Res Dev*. 2019;20:e116.
- 8 Rosvall BR, Forgie K, MacLeod JB, Yip AM, Aguiar C, Lutchmedial S, et al. Impact of Obesity on Intensive Care Unit Resource Utilization After Cardiac Operations. *Ann Thorac Surg*. 2017 Dec;104(6):2009–15.

- 9 Dennis DM, Bharat C, Paterson T. Prevalence of obesity and the effect on length of mechanical ventilation and length of stay in intensive care patients: A single site observational study. *Aust Crit Care*. 2017 May;30(3):145–50.
- 10 Robinson MK, Mogensen KM, Casey JD, McKane CK, Moromizato T, Rawn JD, et al. The relationship among obesity, nutritional status, and mortality in the critically ill. *Crit Care Med*. 2015 Jan;43(1):87–100.
- 11 Simonnet A, Chetboun M, Poissy J, Raverdy V, Noulette J, Duhamel A, et al.; Lille Intensive Care COVID-19 and Obesity study group. High prevalence of obesity in severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) requiring invasive mechanical ventilation. *Obesity (Silver Spring)*. doi: 10.1002/oby.22831 [Epub ahead of print].
- 12 Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet*. 2020 Feb;395(10223):497–506.
- 13 Chen N, Zhou M, Dong X, Qu J, Gong F, Han Y, et al. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. *Lancet*. 2020 Feb;395(10223):507–13.
- 14 Gupta R, Ghosh A, Singh AK, Misra A. Clinical considerations for patients with diabetes in times of COVID-19 epidemic. *Diabetes Metab Syndr*. 2020 May–Jun;14(3):211–2.
- 15 Zhou F, Yu T, Du R, Fan G, Liu Y, Liu Z, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet*. 2020 Mar;395(10229):1054–62.
- 16 Petrilli CM, Jones SA, Yang J, Rajagopalan H, O'Donnell LF, Chernyak Y, et al. Factors associated with hospitalization and critical illness among 4,103 patients with COVID-19 disease in New York City. *medRxiv*. doi: 10.1101/2020.04.08.20057794.