VALLEY MEDICAL GROUP
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Clinical Champion Update

Date: 5/24/24 *Subject: Lifestyle Medicine*

Increasing GLP-1 Secretion for Weight Loss

Approximately 74 percent of US adults are overweight, and nearly 43 percent are obese, according to the Centers for Disease Control. It's no surprise that sales of GLP-1 agonist semaglutide (Ozempic and its offshoots, Wegovy and Rybelsus) have skyrocketed since its approval in 2017, originally for type 2 diabetes and subsequently for weight loss. The same is true for tirzepatide (Mounjaro and Zepbound), which entered the market more recently. Despite their popularity, a recent study reported in *Blue Health Intelligence* (May 2024, online) indicates 30 percent of patients don't continue the medications beyond the first four weeks – well before reaching target dosing – and only 42 percent meet the definition of clinical success at 12 weeks. Cost, side effects, age, region, type of prescriber, and frequency of follow-up visits were among the factors that affected patients' persistence.

About two-thirds of US adults who have tried them say these medications have been very effective in helping them lose weight. However, most benefit was seen in patients ages 18 to 64; adults ages 65 and up reported less weight loss, according to a recent survey for the Gallup National Health & Well-Being Index (online).

Given the prevalence of overweight and obesity and their comorbidities – and the shortages of GLP-1 agonists and attendant difficulties in obtaining them for the many patients who request them daily – what to recommend?

GLP-1, or glucagon-like peptide 1, is a hormone that increases both insulin production and satiety. The latter is a key factor in successful and sustained weight loss.

Evaluations of Effectiveness of Injectable Weight Loss Drugs, by Age

Based on your experience using an injectable weight loss drug, how effective would you describe the drug in helping you lose weight?

	U.S. adults %	18 to 49 %	50 to 64 %	65 and older %
Extremely effective + Effective	**64**	**70**	**67**	**48**
Extremely effective	30	34	34	18
Effective	34	36	33	30
Only a little effective	20	14	19	33
Not at all effective	11	9	10	14
Don't know	5	6	3	5
Only a little effective + Not at all effective	**31**	**23**	**29**	**47**

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Fortunately, dietary factors can help to promote GLP-1 without the expense and side effects of GLP-1 agonist medications. Obesity and the metabolic changes that occur with type 2 diabetes are associated with a decrease in postprandial secretion of GLP-1, which can lead to further weight gain over time. Manipulation of diet composition to promote GLP-1 secretion is seen as a promising lifestyle strategy for the treatment of obesity

and type 2 diabetes (Bodnaruc *et al.,* 2016). A study of GLP-1 secretion following glucose ingestion suggested a positive correlation with ingestion of low-calorie foods (Jones *et al.,* 2021).

Reducing a diet's energy density (also known as calorie density) allows individuals to eat satisfying volumes of food while ingesting fewer calories, which leads to weight loss (Smethers and Rolls, 2018). The foods that tend to be lower in energy density are also the foods that increase postprandial GLP-1 secretion.

The foods that help with weight loss are high in fiber and complex carbohydrates: vegetables, fruits, whole grains, and legumes. (The same foods also increase weight loss in individuals taking GLP-1 agonists; the medications don't work well for people eating their usual diet if it's high in saturated fats and ultraprocessed food items.) Numerous studies have led to this list of foods that help with weight loss (Barnard *et al.,* 2024): berries, apples, pears, cruciferous vegetables, green leafy vegetables, starchy vegetables, peppers, melons, citrus fruits, legumes, whole grains, spices, sea vegetables.

Encourage patients to expand their choices of foods from among these groups for weight loss as well as for improved overall health. Blueberries may lack the cachet of Ozempic – but also won't have the adverse effects.

--Lisa Appleton, FNP, clinical champion for lifestyle medicine / hyperlipidemia

References

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