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# GLP-1 Receptor Agonist Protocol (Phase 1)

Clinical protocol for individuals currently taking GLP-1 agonists

GLP-1, short for glucagon-like peptide-1, is an incretin hormone produced in the gut and extra-intestinally that is released in response to a food bolus; increased levels are detectable within 15 minutes of starting a meal. GLP-1 encourages insulin release from the pancreas to help lower blood sugar levels, increases the volume of pancreatic beta-cells, inhibits glucagon release, and increases satiety after meals by acting on the appetite regulation centers in the brain and slowing gastric emptying. GLP-1 is rapidly broken down by the dipeptidyl peptidase-4 enzyme.[1,2]

GLP-1 receptor agonists (GLP-1 RAs) are a class of medications primarily used to manage blood sugar levels in individuals with type 2 diabetes. These medications have also gained tremendous popularity for weight loss in obese and overweight individuals. They mimic the action of the naturally occurring hormone GLP-1 and should be used to complement healthy lifestyle and dietary habits. Common gastrointestinal (GI) complaints include nausea, diarrhea/constipation, anorexia (loss of appetite), and vomiting due to GLP-1's pleiotropic effect on GI physiology. Use of these medications has also been associated with increased risk of biliary disease, pancreatitis, bowel obstruction, and gastroparesis.[3,4,5] Because GLP-1 RAs interfere with the absorption and utilization of essential vitamins and minerals in the body, they can potentially lead to nutrient depletions over time.

This clinical protocol is designed to support patients who are currently taking GLP-1 RAs through diet, lifestyle, and evidence-based nutritional supplementation.*

## Lab Testing Considerations

- For the reasons listed above, it is imperative that practitioners regularly monitor blood sugar levels and kidney, pancreatic, liver, and GI function while using GLP-1 RAs.
- Designs for Health Metabolomics Spotlight™ to assess micronutrient status, metabolic and macronutrient processing, and amino acid and protein metabolism.
- Designs for Health Genomic Spotlight™ – Gastrointestinal Report (leptin-related genes: FTO rs1121980, LEP rs791600, COBLL1 rs13389219).

## Dietary and Nutritional Considerations

- Advise consuming a balanced micronutrient-rich diet that prioritizes lean proteins (1 g per lb/body weight), non-starchy vegetables, and healthy fats, while avoiding processed foods, added sugars, alcohol, trans fats, and sweetened beverages. Consider supplementing with additional protein powder to help meet protein needs, promote satiety and normal appetite, and support lean muscle mass retention, and healthy body composition.[6,7]
- Encourage adequate hydration and natural detoxification by drinking filtered water with electrolytes throughout the day, and consuming fiber before meals to support satiety and promote bowel regularity.*
- To help with sugar cravings, try mixing 3 g of L-glutamine powder in water with lemon.* Glutamine quickly converts to glucose and may rapidly satiate the craving without impacting insulin.[8] Consider a 0 g sugar dark chocolate sweetened with allulose such as Fx Chocolates. Allulose has been shown to stimulate secretion of GLP-1.[9]

## Lifestyle Interventions

- Recommend regular strength and/or high-intensity interval training to support healthy blood sugar and body composition and to promote retention of lean muscle mass and healthy metabolic rate.
- Because stress and sleep deprivation impact blood sugar and mechanisms in the brain that govern appetite and food cravings,[10] encourage patients to adopt stress-reduction techniques such as daily meditation and deep breathing, and to improve their sleep hygiene routines.
- Advise switching to clean, simple skincare and household products; avoiding exposure to pollutants, synthetic chemicals, and other environmental toxins (e.g., cigarette smoke, plastics, synthetic fragrances, PFAS).

## Supplement Protocol

During GLP-1 Receptor Agonist Use

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| **Primary Support:** | |
| MyoStim™ | Mix 1 stick pack in 8 ounces of water to help promote retention of lean muscle mass.*[11] |
| Performance Peptides™ | 4 capsules per day to help support overall muscle homeostasis (growth, endurance, retention, recovery, and overall performance).*[12] |
| Metabolic Synergy™ | 6 capsules per day with a meal (divided dosing recommended) to support optimal micronutrient status and metabolic function* |
| Pancreatic Enzymes Plus | 1 capsule with each meal as GLP-1 RAs can reduce gastric acid and pancreatic enzyme secretion*[5] |
| ProbioSpore™ | 1 capsule per day with a meal to support gut microbial balance and short-chain fatty acid production* |
| **Optional support for the following concerns:** | |
| P-5-P | 1 per day for occasional nausea*[13] |
| Charcoal Plus Binder | 2 softgels in the evenings before bed to help bind toxins during fat loss to be properly eliminated* |
| Thyroid Synergy™ | 2 capsules per day to promote thyroid balance* |
| FloraMyces™ | 1-2 capsules per day with a meal in cases of occasional diarrhea*[14] |
| MagCitrate Powder | For occasional constipation, test to bowel tolerance and then reduce by one scoop per day before bedtime*[15] |
| DGL Synergy™ | Chew 2 tablets before meals for occasional heartburn or acid reflux* |

**For a list of references cited in this document, please visit:**
https://www.designsforhealth.com/api/library-assets/literature-reference---glp-1-receptor-agonist-phase-1-protocol-references

**Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Health-care practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage. Any product containing botanical substances has the potential for causing individual sensitivities, appropriate monitoring, including liver function tests (LFT) is recommended.**

For considerations regarding herb-drug and nutrient-drug interactions, please refer to reliable, evidence-based resources such as the Natural Medicine Database or Stargrove MB, Treasure J, McKee DL. *Herb, Nutrient, and Drug Interactions: Clinical Implications and Therapeutic Strategies.* St. Louis, MO: Mosby-Elsevier; 2008.



*__These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.__