

MELT-TRL™ White Paper

A Next-Generation Clinic-Dispensed Spray for Appetite Control & Weight Management Support

For Physician and Clinic Distribution Only

Version 1.1 — 2026

1. Executive Summary

MELT-TRL™ is an innovative, clinic-exclusive oral spray designed to support modern weight-management protocols by targeting one of the most important challenges in obesity care today: **Food Noise and Appetite Dysregulation**.

MELT-TRL™ combines three of the most scientifically exciting metabolic signaling compounds in contemporary research:

- Liraglutide 6C
- Retatrutide 6C
- Tirzepatide 6C

Delivered in a convenient organic-alcohol spray format, MELT-TRL™ is designed for integration into supervised clinical wellness and weight-optimization programs.

2. The Rise of “Food Noise” in Modern Metabolic Care

Patients struggling with weight frequently describe persistent intrusive hunger signals, cravings, and reward-driven eating — often referred to as **Food Noise**.

Appetite regulation is strongly linked to hormonal signaling pathways involving:

- Satiety hormones
- Gut-brain signaling
- Incretin response

This has driven the emergence of incretin-focused therapies as one of the most impactful breakthroughs in metabolic medicine.

3. Scientific Foundation: The Incretin Pathway

GLP-1 and GIP signaling represent the forefront of weight-loss science. In multiple landmark clinical trials, incretin-based compounds have demonstrated impressive outcomes in:

- Appetite reduction
- Improved eating control

- Significant weight reduction
- Enhanced metabolic function

Liraglutide (GLP-1 Receptor Activity)

Liraglutide has been shown in major randomized trials to support meaningful weight loss and appetite control when paired with lifestyle intervention.

Key trial finding: Patients achieved significant reductions in body weight and improved satiety regulation.

Reference: Pi-Sunyer et al., NEJM, 2015

<https://www.nejm.org/doi/full/10.1056/NEJMoa1411892>

Tirzepatide (Dual GIP/GLP-1 Pathway Support)

Tirzepatide represents an advancement in metabolic therapy through combined incretin signaling.

SURMOUNT-1 demonstrated unprecedented average weight reduction outcomes in adults with obesity.

Reference: Jastreboff et al., NEJM, 2022

<https://www.nejm.org/doi/full/10.1056/NEJMoa2206038>

Retatrutide (Triple-Agonist Next Frontier)

Retatrutide is among the most exciting investigational metabolic innovations, engaging GLP-1, GIP, and glucagon pathways.

Phase 2 research has shown striking weight reduction and appetite improvements.

Reference: Jastreboff et al., NEJM, 2023

<https://www.nejm.org/doi/full/10.1056/NEJMoa2301972>

4. MELT-TRL™ Formula Concept

MELT-TRL™ is inspired by the clinical success of incretin science and is designed as a clinic-dispensed wellness spray supporting:

- Appetite balance
- Reduced cravings
- Improved dietary adherence
- Weight-management program success

Key Product Attributes

- Organic alcohol spray delivery
- Non-injectable, patient-friendly format

- Integrates seamlessly into clinic protocols
- Exclusive professional channel distribution

5. Clinical Use Case: Physician-Led Weight Programs

MELT-TRL™ is ideally positioned for adults enrolled in:

- Weight-loss clinics
- Metabolic optimization programs
- Lifestyle + nutrition coaching protocols
- Appetite-support regimens

Suggested Program Integration

Clinics may incorporate MELT-TRL™ alongside:

- High-protein nutrition planning
- Resistance training
- Behavioral appetite coaching
- Sleep and stress optimization

6. Practice Opportunity

The demand for appetite-support tools has never been greater. MELT-TRL™ provides clinics with a unique, differentiated product aligned with the most important scientific trend in weight management today: **Hormonal appetite signaling support.**

Because MELT-TRL™ is offered exclusively through physicians and clinics, it enhances:

- Patient retention
- Program adherence
- Premium metabolic service offerings

7. Conclusion

MELT-TRL™ represents a new category of clinic-exclusive appetite-support innovation, drawing inspiration from the most successful metabolic research pathways in modern medicine.

By combining Liraglutide, Tirzepatide, and Retatrutide in a single oral spray concept, MELT-TRL™ is designed to support:

- Reduced food noise
- Appetite control
- Weight-loss program success

- Patient lifestyle transformation

References

Pi-Sunyer X, et al. Liraglutide and Weight Management. NEJM, 2015.

<https://www.nejm.org/doi/full/10.1056/NEJMoa1411892>

Jastreboff AM, et al. Tirzepatide Once Weekly in Obesity (SURMOUNT-1). NEJM, 2022.

<https://www.nejm.org/doi/full/10.1056/NEJMoa2206038>

Jastreboff AM, et al. Retatrutide Phase 2 Trial in Obesity. NEJM, 2023.

<https://www.nejm.org/doi/full/10.1056/NEJMoa2301972>