

Advancing Therapeutic Delivery Through Trans-Oral Mucosal Technology

InstaMed Pharmaceuticals

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Summary

InstaMed Pharmaceuticals is pioneering the future of active ingredient delivery for both Rx and Non Rx ingredients. Utilizing a patented ODS (Oral Dissolvable Strip) technology designed for trans-oral mucosal administration, including buccal and sublingual routes, we are providing a method for higher compliance and better user experience. Our technology utilizes the highly vascularized mucous membranes of the mouth to enhance bioavailability, bypass first-pass metabolism, and eliminate the need for injections or gastrointestinal absorption. Our oral dissolving strips are precision-engineered to adhere within the mouth, delivering a wide range of active ingredients directly into systemic circulation—quickly, effectively, and conveniently.

The Science of Trans-Oral Mucosal Delivery

1. Buccal and Sublingual Pathways

Trans-oral mucosal delivery exploits key regions in the mouth:

- **Buccal** (cheek) mucosa
- **Sublingual** (under the tongue) mucosa
- **Upper Palate** (roof of mouth) mucosa

These routes allow active pharmaceutical ingredients (APIs) to diffuse through the mucosal epithelium and enter the rich capillary networks underneath, leading directly to systemic circulation. Oral dissolvable strips bypasses hepatic first-pass metabolism and gastrointestinal degradation—critical advantages for sensitive molecules like peptides, hormones, and small molecules.

InstaMed's InstaRelease™ Technology

Our oral strips are engineered to:

1. Adhere to the buccal or sublingual mucosa, ensuring prolonged contact for absorption.
2. Dissolve at an ideal rate depending on the compound and intended kinetics.
3. Stabilize molecules, such as peptides, through proprietary formulation processes that preserves activity.

4. Enhance penetration with the use of patent pending delivery enhancing molecules based on the chemical characteristics of the actives.

Key Advantages of InstaMed's InstaRelease™ Delivery

- Non-invasive alternative to injections and bypass of gastrointestinal tract
- Improved bioavailability, especially for peptides, hormones, and other labile compounds
- Rapid onset of action due to direct bloodstream entry
- Precision dosing and enhanced compliance through patient-friendly formats
- Flexible adhesion options (buccal, sublingual, upper palate) depending on API properties and user preferences

Use Cases and Applications

InstaMed's buccal delivery platform supports a wide range of functional and therapeutic ingredients, including:

- **Peptides**
- **Hormones**
- **Neurotropic agents**
- **Non-Drug or Nutraceutical ingredients**
- **Sexual wellness compounds**

Conclusion

InstaMed's patented trans-oral mucosal delivery system represents a breakthrough in therapeutic innovation. By merging scientific precision with user-friendly design, we are redefining how active compounds are absorbed and experienced—unlocking new opportunities for clinicians, brands, and patients alike.