

Psilocybin Dosage Definitions

Definition of Maximum Theoretical Psilocin (MTP)

Maximum Theoretical Psilocin (MTP) is a standardized chemical measure representing the maximum theoretical quantity of psilocin that could become systemically available following complete conversion of psilocybin to psilocin. MTP is expressed in milligrams of psilocin equivalents.

Unless otherwise specified, all dose ranges are expressed in milligrams of psilocin equivalents (MTP)

MTP Calculation

$$\text{MTP} = (\text{measured mg of psilocin}) + (\text{measured psilocybin mg} * 0.719)$$

Note: The conversion factor (0.719) reflects the molecular weight ratio of psilocin to psilocybin.

Definition of Available Psilocin Fraction (APF)

Available Psilocin Fraction (APF) describes the proportion of a product's MTP that is present as free psilocin at the time of administration.

APF reflects chemical composition only. While differences in psilocin and psilocybin pharmacokinetics suggest potential associations with onset and duration, APF is not intended to predict individual clinical response or therapeutic outcome.

$$\text{APF} = \frac{\text{mg of psilocin}}{\text{MTP}}$$

Interpretation and Clinical Significance

- **Higher APF** values indicate a greater proportion of immediately available psilocin and are associated with a higher likelihood of earlier onset and more prominent early psychoactive effects.
- **Lower APF** values indicate a greater proportion of psilocybin requiring metabolic conversion and are associated with a higher likelihood of delayed onset and extended duration.

The Committee emphasizes that:

- APF reflects chemical composition only

- Actual onset, intensity, and duration vary substantially based on individual physiology, route of administration, and contextual factors
- APF should be interpreted alongside MTP, dose, and patient-specific considerations

Onset Profile Categories (OPC)

Each dose shall be categorized using APF as:

- **Rapid-Onset Dominant:** APF \geq 0.40
- **Balanced:** APF 0.20–0.39
- **Sustained-Onset Dominant:** APF $<$ 0.20

Advisory Note

These categories are descriptive and provisional. The Committee recommends their use for clinical planning and monitoring, not as determinative classifications. Thresholds should be revisited as outcome data accumulate. OPC thresholds are heuristic and do not imply discrete biological or clinical boundaries.

Dosage Levels

Subperceptual dose:

1. *Definition:* A dose intended to produce minimal to no meaningful alterations in perception, cognition, or sensory processing
2. *Dose Limits:*
 - i. Total daily dose \leq 2.5 mg MTP
 - ii. Total weekly dose \leq 7.5 mg MTP
3. *Onset Guidance:*
 - i. Subperceptual dosing should utilize Sustained-Onset Dominant or Balanced products
 - ii. Rapid-Onset Dominant products are discouraged for subperceptual use due to disproportionate early psychoactivity

Perceptual dose

1. *Definition:* A dose expected to produce noticeable perceptual, emotional, or cognitive
2. *Mild Perceptual:*

- a. Total dose: 2.5mg MTP to 10mg MTP
- 3. *Therapeutic Perceptual:*
 - a. Total dose: 10mg MTP to 30 mg MTP
- 4. *Onset Guidance:*
 - a. For Rapid-Onset Dominant products, dosing should initiate at the lower end of the applicable range.
 - b. Balanced and Sustained-Onset Dominant products may utilize the full range as clinically appropriate.

High Dose

1. *Definition:* A dose range expected to produce marked alterations in perception, cognition, and self-referential processing. High-dose administration is considered evidence-limited and is not supported by current randomized clinical trial data as therapeutically superior to lower doses.
2. *Dose Range:*
 - a. Total dose: >30mg MTP
3. *Restrictions:*
 - a. High dose administration should not be construed as standard therapeutic dosing and should be reserved for circumstances with explicit clinical justification and enhanced monitoring. For additional restrictions we defer to the Patient Qualification & Safety Committee.
4. *Onset Guidance:*
 - a. Rapid-Onset Dominant products (APF \geq 0.40) shall be administered with extended preparatory observation, due to faster ascent and earlier peak intensity.
 - b. Initial high-dose administration using Rapid-Onset Dominant products shall employ conservative titration, with incremental dosing and sufficient observation intervals to assess early psychoactive effects.
 - c. Balanced products may be administered using standard high-dose protocols with appropriate supervision.
 - d. Sustained-Onset Dominant products (APF < 0.20) may require longer monitoring periods prior to peak effect due to delayed onset and extended duration.

Data Collection and Continuous Improvement

The Committee recognizes the importance of systematic data collection to support evidence-informed refinement of dosage frameworks, onset profile categories, and safety guidance.

All data collection, outcome tracking, analysis, and continuous improvement activities related to psilocybin dosing, onset profiles, and clinical outcomes shall fall under the authority of the Research & Continuous Improvement Committee.