## Comparison of Oral Magnesium Salts

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<th>Formulation</th>
<th>Brand Names&lt;sup&gt;a&lt;/sup&gt;</th>
<th>% Elemental Magnesium (W/W)&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Dosage Forms&lt;sup&gt;c&lt;/sup&gt;</th>
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| Magnesium Carbonate       | MagneBind (U.S.), Gaviscon, etc.                    | 28<sup>1</sup>                          | Tablet                   | • Not very soluble<sup>4</sup>  
  • Gaviscon used as antacid  
  • MagneBind used as phosphate binder (infrequently used) |
| Magnesium Chloride        | Slow-Mag (U.S.), Mag 64 (U.S.), Mag Delay (U.S.), Mag-SR (U.S.), Magnolex Liquid (Canada), etc. | 12<sup>2</sup>                          | Tablet, Liquid           | • 20% absorbed<sup>3</sup>  
  • Enteric coating may delay absorption<sup>4</sup>  
  • Used as supplement |
| Magnesium Citrate         | Citroma (U.S.), Citro-Mag (Canada), etc.            | 16<sup>2</sup>                          | Tablet, Capsule, Solution, Powder | • Limited absorption<sup>4</sup>  
  • Commonly used as a laxative and bowel prep  
  • Chill to improve taste<sup>3</sup> |
| Magnesium Glucoheptonate  | Magnelium, Magnolex Cap, etc. (Canada only)         | 5<sup>3</sup>                           | Capsule, Solution        | • Amount absorbed unknown  
  • Used as supplement |
| Magnesium Gluconate       | Mag-G (U.S.), Magonate (U.S.), Magtrate (U.S.), Maglucate (Canada), etc. | 5<sup>2</sup>                           | Tablet, Liquid           | • 42% absorbed<sup>5</sup>  
  • Take on an empty stomach<sup>1</sup>  
  • Used as supplement |
| Magnesium Hydroxide       | Phillips’ Milk of Magnesia, Gelusil, etc.           | 42<sup>2</sup>                          | Tablet, Suspension       | • Practically insoluble<sup>4</sup>  
  • Shake suspension well<sup>3</sup>  
  • Chew tablets<sup>3</sup>  
  • Liquid may be diluted with small amount of water prior to administration<sup>1</sup>  
  • Used as antacid and laxative |

<sup>a</sup> Brand names listed are for example only.  
<sup>b</sup> Percent magnesium content.  
<sup>c</sup> Dosage forms listed are for example only.  
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| Magnesium L-Aspartate HCl | Maginex, Maginex DS (U.S. only) | 10<sup>±</sup>                  | Tablet Granules          | • 41% absorbed<sup>4</sup>  
• Mix each packet in 4 oz water or juice prior to administration<sup>1</sup>  
• Do not crush or chew enteric coated tablets<sup>2</sup>  
• Take with food<sup>1</sup>  
• Used as supplement |
| Magnesium L-Lactate | Mag-Tab SR (U.S. only)          | 12<sup>±</sup>                  | Caplet                   | • 41% absorbed<sup>6</sup>  
• Take with food<sup>1</sup>  
• Used as supplement |
| Magnesium Oxide     | Mag-Ox 400 (U.S.), MagGel 600 (U.S.), Uro-Mag (U.S.), Magnesium Oxide 420 (Canada), etc. | 60<sup>±</sup>                  | Tablet Capsule Caplet   | • 4% absorbed<sup>7</sup>  
• Take with food<sup>1</sup>  
• Store tightly closed in a dry location<sup>3</sup>  
• Used as supplement |
| Magnesium Sulfate   | Epsom salts                     | 10<sup>±</sup>                  | Powder                   | • 4% absorbed<sup>8</sup>  
• Mix powder with water prior to administration<sup>3</sup>  
• Used as laxative (oral) and a topical soaking aid |

<sup>a</sup> Some of the listed brands may contain other ingredients in addition to magnesium (e.g., sodium, calcium, etc).

<sup>b</sup> Percent elemental magnesium content can vary by product (e.g., new Slow-Mag formulation is 13.4% elemental magnesium). Percentage listed is based on commonly used products.

<sup>c</sup> Available formulation may differ by country (i.e., U.S. vs Canada).

<sup>d</sup> When choosing a product, consider both the amount of elemental magnesium and the percent absorbed.

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References


