

**Molecule ID:** 25

**Keyword:** paracetamol

**User ID:** 8

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## PubChem

**Compound Name:** Acetaminophen

**Molecular Form:** C<sub>8</sub>H<sub>9</sub>NO<sub>2</sub>, HOC<sub>6</sub>H<sub>4</sub>NHCOCH<sub>3</sub>

**Molecular weight:** 151.16 g/mol

**CAS registration:** 103-90-2

**ATC code:** N - Nervous system / N02 - Analgesics / N02B - Other analgesics and antipyretics / N02BE - Anilides / N02BE01 - Paracetamol

**IUPAC name:** N-(4-hydroxyphenyl)acetamide

**Solubility:** 14 mg/mL at 25 °C

**Physical description:** Solid

**Melting point:** 170 °C

**Decomposition:** Decomposition not found

**Half life:** The half-life for adults is 2.5 h after an intravenous dose of 15 mg/kg. After an overdose, the half-life can range from 4 to 8 hours depending on the severity of injury to the liver, as it heavily metabolizes acetaminophen.

**Reactivity:** Reactivity not found

## PubMed

**Pharmacodynamics:** Additionally, more studies on phenacetin in the 1940s showed that paracetamol is one of its major metabolites and thus its pharmacological effects are attributed to paracetamol [Google Scholar][2] Brodie BB, Axelrod J. The fate of acetophenetidin (phenacetin) in man and methods for the estimation of acetophenetidin and its metabolites in biological material. [Ref list][2] Brodie BB, Axelrod J. The fate of acetophenetidin (phenacetin) in man and methods for the estimation of acetophenetidin and its metabolites in biological material.

**Overview of Efficacy:** "paracetamol" and "Overview of Efficacy" pubmed "free article" - Google Search (function(){var b=window.addEventListener;window.addEventListener=function(a,c,d){"unload"!==a&&b(a,c,d);}}).call(this);(function(){var \_g={kEI:'9dqrZeWGLbPN0PEP6d2N6AM',kEXPI:'31',kBL:'Um0u',kOPI:89978449};(function(){var a;(null!==(a=window.google)?0:a.stvsc)?google.kEI=\_g.kEI:window.google=\_g;}).call(this);})();(function(){google.sn='web';google.kHL='en-TN';})();(function(){var h=this||self;function l(){return void 0!==(window.google&&void 0!==(window.google.kOPI&&0!==(window.google.kOPI?window.google.kOPI:null);var m,n=[];function p(a){for(var b;a&&(!a.getAttribute||!(b=a.getAttribute("eid")));)a=a.parentNode;return b||m}function q(a){for(var b=null;a&&(!a.getAttribute||!(b=a.getAttribute("leid")));)a=a.parentNode;return b}function r(a){/^http/i.test(a)&&"https:"===window.location.protocol&&(google.ml&&google.ml;(Error("a"),!1,{src:a,gmm:1}),a="");return a}function t(a,b,c,d,k){var e="";-1===b.search("&ei;=")&&(e="&ei;="+p(d,-1===b.search("&lei;=")&&(d=q(d))&&(e+="&lei;="+d));d="";var g=-1===b.search("&cshid;=")&&"slh"!==a,f=[];f.push(["zx",Date.now().toString()]);h.\_cshid&&g&&f.push(["cshid",h.\_cshid]);c=c();null!=c&&f.push(["opi",c.toString()]);for(c=0;c<Pharmacodynamics Drug Interaction: Acetaminophen absorption and metabolism in an intestine/liver microphysiological system . Chem Biol Interact 2019; 299 : 59-76.

**Clinical Studies:** Older clinical studies using paracetamol at subtherapeutic doses of ≤10 mg/kg generally show that it is less effective than non-steroidal anti-inflammatory drugs (NSAIDs). However, recent evidence shows that when used at dose of 15 mg/kg for fever and pain management, paracetamol is significantly more effective than placebo, and at least as effective as NSAIDs.

**Overview of Safety:** As a result of its favorable safety and tolerability record, paracetamol has long

been the most common drug for treating pain. Strikingly, recent reports questioned its therapeutic value and safety.

**Marketing Experience:** Copyright © 2021 Informa UK Limited, trading as Taylor & Francis Group Go to: ABSTRACT article-meta Paracetamol (acetaminophen) is undoubtedly one of the most widely used drugs worldwide. As an over-the-counter medication, paracetamol is the standard and first-line treatment for fever and acute pain and is believed to remain so for many years to come.

**Benefits/Risks:** Conclusions Paracetamol has been one of the most recognizable drugs, both on- and off-prescription, and it is likely to remain so in the future. As a result of the global aging, painful and disabling conditions are increasing. Paracetamol has a favorable safety profile that will be of utmost importance across all ages and especially in the elderly. Liver toxicity is a concern, but it is questionable at doses up to 4 g/day.

