Toward a safer form of acetaminophen
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Efforts to develop a safer form of acetaminophen—the pain and fever-reducer that is one of the most widely used drugs—have led to discovery of substances that may have less potentially toxic effects on the liver. A report on the research appears in *ACS Medicinal Chemistry Letters*.

Roman Shchepin and colleagues explain that a link exists between acetaminophen and liver damage. The damage may be severe and can occur with intentional and accidental overdoses, as well as when susceptible individuals take the drug. Indeed, acetaminophen has been implicated in almost 50 percent of all acute liver failure cases in the United States alone. Scientists have known the biochemical basis of acetaminophen’s liver toxicity, and Shchepin and colleagues set out to develop safer versions of acetaminophen.

They describe the design and testing of two compounds that have a similar architecture to acetaminophen, but aren’t toxic to liver cells grown in the laboratory. The researchers say that, although further testing is needed, these compounds are promising candidates for acetaminophen replacements.

More information: "Rational Design of Novel Pyridinol-Fused Ring Acetaminophen Analogues" *ACS Med. Chem. Lett.*, Article ASAP DOI: