

Acute Mental Status Change, Delirium, and New Onset Psychosis

Changes in mental status can be caused by a variety of factors, including intoxication, infection, stroke (<https://www.radiologyinfo.org/en/info/stroke>) , bleeding, tumor (<https://www.radiologyinfo.org/en/info/braintumor>) , fluid, trauma (<https://www.radiologyinfo.org/en/info/headinjury>) or brain injury, and inflammation. This can show up as changes in behavior, alertness, agitation, confusion, and seizures. When there is high suspicion of bleeding, stroke, infection, or tumor or if the individual has extremely high blood pressure, CT (<https://www.radiologyinfo.org/en/info/headct>) or MRI (<https://www.radiologyinfo.org/en/info/mri-brain>) without intravenous (IV) contrast may be the initial examination. If the examination without contrast does not show the cause, follow-up CT or MRI performed with IV contrast may help if a tumor or an infection is suspected. If an individual has a known infection, tumor, recent bleeding, or recent acute stroke and his or her condition is getting worse, it may be appropriate to have CT or MRI of the head without IV contrast or MRI of the head with and without contrast. When the reason for mental state change is known, for example, intoxication, and the cause is not thought to be due to trauma, it may be appropriate to have MRI of the head without and with IV contrast. For individuals whose mental state is getting worse even with treatment or is getting worse without a cause, MRI or CT of the head without IV contrast and MRI of the head without or with IV contrast are usually appropriate. For an individual with new delirium (disturbed state of mind), CT of the head without IV contrast is usually appropriate. For an individual with new psychosis (disconnection from reality), CT or MRI of the head without IV contrast or MRI of the head without and with IV contrast may be appropriate.

— By Susan Anemone and Tasneem Lalani, MD. This information originally appeared in the *Journal of the American College of Radiology*.

Disclaimer

This information is copied from the RadiologyInfo Web site (<http://www.radiologyinfo.org>) which is dedicated to providing the highest quality information. To ensure that, each section is reviewed by a physician with expertise in the area presented. All information contained in the Web site is further reviewed by an ACR (American College of Radiology) - RSNA (Radiological Society of North America) committee, comprising physicians with expertise in several radiologic areas.

However, it is not possible to assure that this Web site contains complete, up-to-date information on any particular subject. Therefore, ACR and RSNA make no representations or warranties about the suitability of this information for use for any particular purpose. All information is provided "as is" without express or implied warranty.

Please visit the RadiologyInfo Web site at <http://www.radiologyinfo.org> to view or download the latest information.

Note: Images may be shown for illustrative purposes. Do not attempt to draw conclusions or make diagnoses by comparing these images to other medical images, particularly your own. Only qualified physicians should interpret images; the radiologist is the physician expert trained in medical imaging.

Copyright

This material is copyrighted by either the Radiological Society of North America (RSNA), 820 Jorie Boulevard, Oak Brook, IL 60523-2251 or the American College of Radiology (ACR), 1891 Preston White Drive, Reston, VA 20191-4397. Commercial reproduction or multiple distribution by any traditional or electronically based reproduction/publication method is prohibited.

Copyright © 2024 Radiological Society of North America, Inc.