

Box 9.3 Evaluation of new-onset or worrisome headaches (Adapted from Marcus DA. Chronic pain. A primary care guide to practical management. 2nd edition, Humana Press, Totowa, NJ, 2008.)

- History and physical examination
 - Complete review of systems
 - Vital signs (including weight, temperature, blood pressure, heart rate, and respirations)
 - Cervical spine examination
 - Resting posture in a normal or forward position
 - Active range of motion for decreased movement or crepitation
 - Palpation for localized tenderness
 - Neurological evaluation
 - Gait
 - Fundoscopy for papilledema^a
 - Assess symmetry of face and eye movements
 - Strength and reflex testing
 - Sensation to touch
 - Able to identify 2 of 3 numbers drawn in the palm without looking
- Laboratory
 - Radiological testing
 - Computed tomography or magnetic resonance imaging (MRI) of brain if red flags present/secondary headache is suspected and testing will change treatment recommendations
 - X-ray cervical spine for mechanical abnormalities^b if testing will change treatment recommendations
 - MRI of cervical spine for radiculopathy^c if testing will change treatment recommendations
 - Lab work when medical history or examination suggests general medical illness
 - Autoimmune tests (antinuclear antibody), though rarely helpful as frequent false positives
 - Hematology (blood count)
 - Sedimentation rate/C-reactive protein and temporal arteritis workup for new headache in patients aged >50 years
 - Anemia, low platelets in pre-eclampsia/eclampsia
 - Chemistries (electrolytes; liver and kidney function tests)
 - Urinalysis for proteinuria in pre-eclampsia/eclampsia

- Endocrine (thyroid function tests)
- Infectious (rapid plasma reagin for syphilis, HIV testing)

^aFundoscopy examination may be enhanced by using the Welch Allyn Panoptic fundoscope, which provides a magnified view for easier viewing. (Details available at <http://www.welchallyn.com/promotions/PanOptic>).

^bMechanical abnormalities include abnormal posture, restricted range of motion, or pain reproduced with neck motion.

^cRadiculopathy should be considered if focal strength, reflex, or sensory loss in an arm is present.