Algorithm: Headache

### Signs of elevated ICP or intracranial lesion?
(acute new severe headaches that are progressing and not improving, altered mental status, new neurological abnormality, papilledema)

- **Yes**  →  Consider neuroimaging and/or calling the Provider-to-Provider Line for the neurologist on call (206-987-7777). If fundoscopic exam is unclear, consider ophthalmological evaluation.

- **No**  →  Work-up and treatment as appropriate. May include neuroimaging or labs, and consider calling the Provider-to-Provider Line for the neurologist on call (206-987-7777) if there are questions.

### Signs or symptoms of secondary headache?
(e.g., dental disease, risk of bleeding or clotting, immunosuppression, acute illness, sinusitis, thyroid disease, autoimmune disorder, anemia, iron deficiency, sleep disorder, other systemic disease)

- **Yes**  →  Diagnosis, work-up and treatment as appropriate. Consider referral to Neurology for patients with hemiplegic migraine, unusual or intractable headache conditions.

- **No**  →  Address lifestyle factors as noted below, modify potential migraine triggers AND may consider preventive therapy such as:
  - Cognitive behavioral therapy
  - Supplements: Mg, B2, melatonin, others
  - Biofeedback therapy for migraine
  - Discuss evidence for use of prescription medications for migraine prevention - amitriptyline, topiramate, propranolol to decide with the family if a trial is indicated
  - If preventive treatments are used, consider trial of at least 8-12 weeks to determine efficacy
  - Stop medication if side effects are significant

### Primary headache disorder? Migraine or tension-type headache?

- **Yes**  →  Provide Acute Treatment

- **No**  →  Address Lifestyle Factors

<table>
<thead>
<tr>
<th>Address Lifestyle Factors</th>
<th>Provide Acute Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Appropriate sleep for age</td>
<td>• Drink a large glass of water, rest and address triggers</td>
</tr>
<tr>
<td>• Regular appropriate meals</td>
<td>• Ibuprofen 10 mg/kg and/or acetaminophen 10 mg/kg use ≤10 days/month</td>
</tr>
<tr>
<td>• Adequate hydration (e.g., trial of 60-80 oz/d for teens)</td>
<td>• May add caffeine, but use ≤8 days/month</td>
</tr>
<tr>
<td>• Appropriate exercise</td>
<td>• For episodic migraine treatment, counsel acute treatment at onset of migraine</td>
</tr>
<tr>
<td>• Address “stress,” anxiety and/or depression</td>
<td>• If migraine is not responsive to OTC meds, then consider a triptan such as sumatriptan, rizatriptan (do not use triptan if patient has cardiac or vascular disease)</td>
</tr>
<tr>
<td>• Missing meals or sleep, not drinking adequate fluids, and stress or mental health issues can all trigger or exacerbate headaches</td>
<td>• Avoid medication overuse: <a href="https://www.aan.com/Guidelines/Home/GuidelineDetail/966">https://www.aan.com/Guidelines/Home/GuidelineDetail/966</a></td>
</tr>
</tbody>
</table>

### Are migraines causing disability >4 days per month or dx = chronic migraine?

- **Yes**  →  Continue to address lifestyle factors and provide acute treatment

- **No**  →  Provide Acute Treatment

---

*Seattle Children’s Hospital Research Foundation*

*Seattlechildrens.org/algorithms*

*Revised 3-2020*