



# INFORMATION FOR HEALTH CARE PROFESSIONALS



## Headaches Associated with Exertion and Sexual Activity

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Headaches associated with exertion and sexual intercourse are not new phenomena. Around 450 BC Hippocrates wrote, 'one should be able to recognize those who have headaches from gymnastic exercises or running or walking or hunting or any other reasonable labor or from immoderate venery'. Today, headaches occurring in these contexts continue to be a source of concern for patients. The lifetime prevalence of sexual headache in the only general population based study is estimated at about 1% although reluctance to discuss sexual activity may result in under-reporting of this particular headache type. One recent clinic based study reported that exertional headaches accounted for 1.7% and sexual headaches for 2.8% of all headache subspecialty consultations.

### EXERTIONAL HEADACHE

#### Clinical Features and Evaluation of Exertional Headache

Exertional headaches are bilateral in onset; throbbing or pulsatile in quality, last five minutes to 48 hours, and arise during or after physical exercise. Exertion may trigger both benign primary headaches as well as secondary headaches that are symptomatic of intracranial disease. Although primary exertional headache is more common, the evaluation of all exertional headaches includes neuroimaging studies (i.e., MRA and MRA) and other investigations as warranted to search for a secondary cause. The following characteristics tend to differentiate primary from secondary exertional headaches:

	<b>Primary (Benign)</b>	<b>Secondary (Symptomatic)</b>
<b>Duration</b>	Minutes to 2 days	1-30 days
<b>Quality of Onset</b>	Non-explosive, throbbing	Sudden/Explosive
<b>Nausea</b>	Yes	Yes
<b>Vomiting</b>	No	Yes
<b>Intensity</b>	Moderate to severe	Severe
<b>Location</b>	Unilateral or Bilateral	Bilateral
<b>Diplopia</b>	No neurologic symptoms	Present in 1/3

The most common abnormalities associated with exertional headaches include malignancy, supratentorial and posterior fossa space occupying lesions, traumatic injury, vascular abnormalities (e.g., aneurysm or arteriovenous malformation), intracranial hemorrhage, Chiari malformation and

other obstructions of CSF flow. Note that exercise can be a trigger in some migraine patients for their typical migrainous headaches.

## **Treatment of Exertional Headaches**

Treatment should be started once a structural or vascular cause has been eliminated. When the exertional headaches are of brief duration (minutes), treatment is usually preventative because oral abortive therapies will not have much therapeutic impact. Indomethacin (25 to 150 mg) is the most commonly used treatment for primary exertional headaches. When exertion is predictable, pre-emptive use minutes to an hour prior to exertion may be effective. If indomethacin is ineffective or not tolerated, exertional headaches may be refractory to other treatments although naproxen, phenelzine and ergonovine are sometimes effective.

## **HEADACHE ASSOCIATED WITH SEXUAL ACTIVITY (HASA)**

### **Clinical Manifestations and Evaluation of HASA**

There are three characteristic types of headache associated with sexual activity: Type 1 is a bilateral usually occipital pressure-like headache that gradually increases with mounting sexual excitement. Type 2 sexual headaches have an explosive, throbbing quality and appear just prior to or at the moment of orgasm. Like type 1, they often arise in the occipital area but may rapidly generalize. They are frighteningly similar in character to the headache of subarachnoid hemorrhage. Type 3 is holocephalic, positional and has many clinical features of low CSF pressure headache. HASA may have a male predominance, and some patients with HASA also have migraine, benign exertional headache or tension type headache.

Similarly to exertional headache, HASA may be a manifestation of a benign primary headache disorder or be a symptom of an underlying pathological process. Primary sexual headaches are unpredictable and are not necessarily precipitated with every sexual encounter. The “explosive” Type 2 headaches the most common, the most worrisome, and should always be investigated. Secondary neurological causes of HASA include ischemic stroke (Type 2), subarachnoid or intracerebral hemorrhage, pheochromocytoma, and drugs (amiodarone, oral contraceptives, pseudoephedrine, cannabis).

When confronted with a patient experiencing coital headaches, prudence suggests evaluation for vascular abnormality or subarachnoid hemorrhage. CT and lumbar puncture are warranted if within hours of the onset, and MRI with gadolinium and MRA plus lumbar puncture if days or weeks have elapsed.

### **Treatment and Prognosis of HASA**

Treatments of HASA include advice to engage in sexual intercourse more frequently but less strenuously, or pre-treatment with propranolol (40 –200 mg/day), Bellergeral™ or indomethacin (25-225 mg per day). In general, the prognosis for coital headache is quite good, even for those cases associated with neurological symptoms. However, persistent neurological deficits following coital headaches have been reported.

### **References**

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