Make war on migraines

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It's a tough battle, but there is fresh hope in the fight against the killer headache. Emma Young reports.

Every month, Lannah Sawers-Diggins isolates herself in a darkened room, waiting for the passing of a migraine.

"I've had them for 20 years. They start with a strange feeling that's hard to explain that comes on several hours before the pain actually starts," she says. "Then it's a throbbing, almost itchy headache that makes me feel very nauseous. I can't bear light and I find it very hard to sleep, so I take sleeping tablets.

" Normally this lasts for a few days - the last time, it was for three. It's a very, very debilitating thing."

Migraine is so debilitating, in fact, that the World Health Organisation recently ranked it among the top 20 most serious causes of disability, alongside the likes of schizophrenia and Alzheimer's disease.

Not only does migraine seriously interfere with qualify of life, it's also common. Sawers-Diggins is one of an estimated 2 million Australians who suffer from migraine, about three-quarters of them women. Yet migraine is often dismissed by non-sufferers as a minor complaint, or even an excuse for a few days off work. There is relatively little research into treatments and causes compared with other serious disorders.

"Migraine sufferers don't bleed and cough and splutter all over the place - maybe they just disappear for a day or two - so it tends not to get the priority it really deserves," says Gerald Edmunds, national executive director of the Brain Foundation.

The good news for sufferers is that researchers are getting a clearer picture of the underlying causes of migraine and new treatments are on the way for those who, like Sawers-Diggins, can only sit out their attacks.

It's long been known that migraine runs in the family. About 90 per cent of sufferers have a close relative who is also affected, often a mother or father. Professor Lyn Griffiths at Griffith University in Queensland has led much of the work on migraine genetics. Over the past 10 years, her team has been working to map the genes involved.

So far they've identified three, plus a handful of others that look like they might play a role. But not all families that suffer from migraine share the same genetic variations.

"Different genes play a role in producing migraine symptoms in different people," Griffiths says. This makes sense as some of the symptoms vary between patients - for instance, not everyone suffers from nausea and vomiting - and not everyone benefits from the same migraine medication.

What causes an attack? "We believe that migraine sufferers have a primary disorder of the brain, which renders them more susceptible to stimuli both inside and out," says Associate Professor Alessandro Zagami of the University of NSW, one of Australia's leading migraine experts.

In other words, the brain responds abnormally to a trigger - anything from changes in levels of certain hormones to flashing lights. Oestrogen levels falling during the menstrual cycle are a fairly common trigger, Zagami says. In fact, of the 20 per cent of women who report migraines, about half associate these migraines with menstruation. And in some families, Griffiths's team has

identified variations in a gene related to oestrogen. Headache, caused by changes in blood flow in the head as part of this abnormal brain response, then follows.

For people with infrequent, minor migraine, painkillers may help.

But regular use of aspirin or paracetamol will diminish its effect, meaning you'll need more and more until it no longer helps. And for people with more severe migraine, they might not help at all. "Panadol, Panadeine and other over-the-counter things like that used to work for me, but they don't now," says Sawers-Diggins. "They're pretty well useless for headache sufferers when you get to the level I'm at."

To get the best treatment, you'll need to see a doctor and be diagnosed as a migraine sufferer. The most common prescription treatment is a class of drugs called triptans, which combat headache by narrowing blood vessels.

For some sufferers, these drugs work very well. But about a third of patients develop another migraine headache within 24 hours. And, since the drugs act generally on blood vessels and also narrow coronary arteries, they're not recommended for people at increased risk of cardiovascular disease, or with certain other medical conditions.

New drug treatments that are now in clinical trials work in a different way to triptans. One works by blocking the formation of nitric oxide - the compound that causes the blood vessel changes associated with a migraine and which, researchers think, is partly if not entirely responsible for migraine headache. Early results from trials of these new drugs are good.

"Hopefully they will help the people in whom triptans don't work, or they have drawbacks, like their attack recurs within 24 hours," Zagami says.

Research is also refining the use of existing drugs. A recent study of women who get migraines at the start of menstruation found that those who took the drug frovatriptan for six days, starting two days before they expected their migraine to begin, were less likely to develop a migraine, or the severity was lessened. And while migraines are considered an abnormal brain response to "normal" triggers (such as falling oestrogen levels around menstruation), other researchers suggest that female migraine sufferers should seek tests to see if their hormonal levels are normal, in case hormonal treatment might be recommended - and might help.

Outside mainstream medicine, there is also a booming business in alternative or complementary approaches to migraine treatment. Some sufferers report relief after chiropractic therapy, meditation, osteopathy or acupuncture.

The idea behind acupuncture is that it works by addressing blockages or disturbances to the flow of energy around the body. ***Bobbie Sodarak*** is an acupuncturist with a practice in Haberfield. "The migraine patients I see have usually all tried other forms of treatment first and when they find that their medication isn't as effective as it used to be, they either up their dose or seek alternative methods," she says. Sometimes, patients have endured years of suffering, she says, and it can take some time for acupuncture to have an effect. A first, that might mean a few treatments a week, "but once every six to eight weeks is the ultimate goal". And acupuncture can help not only while a patient is in the grip of an attack, but also to help prevent or lessen the severity of future migraines, she says.

It's certainly clear that new treatments for migraine are badly needed, says Griffiths. As too is more work on the underlying causes, and on other health risks associated with migraine. For instance, it's long been known that migraine sufferers have an increased risk of stroke, and Griffiths's team has pinned down a genetic variation involved in this. This increased stroke risk seems to be restricted to women under 45, particularly if they smoke or are taking a contraceptive pill - but it is very small, Zagami stresses.

A bigger health issue is to improve diagnosis of migraine. Some estimates say only half the migraine sufferers in Australia have been diagnosed. Sometimes people don't even tell their

doctors, perhaps because they've tried a drug before and it hasn't worked. But what some patients don't always know is that nausea can reduce absorption of the medication and thus compromise the drug's effectiveness. But there are other drugs which, if also taken, can boost absorption and might relieve pain in patients who believe drugs can't help. "Many times I hear people say, 'I've been putting up with this for 20 years and I just thought it was what I had to do.' These people go away for a day or two from their family life and lie in bed - and that's just not acceptable," Zagami says.

http://www.headacheaustralia.org.au

What is migraine - and what triggers it?

A headache is a migraine when:

- It involves at least two of the following:
  - pain on one side
  - moderate to severe throbbing
  - aggravated by movement

- There is at least one of the following associated symptoms:
  - nausea and/or vomiting
  - sensitivity to light
  - sensitivity to noise

- It lasts between four and 72 hours

Other possible symptoms include:

- Aura (visual disturbances, such as flashing lights, zigzag lines or blind spots lasting 20 to 45 minutes - these affect 20 to 30 per cent of migraine sufferers), difficulty in concentrating, diarrhoea, stiffness of the neck and shoulders.

Diagnosis

- Migraine with aura is known as classic migraine, while other migraines are known as common migraine.
- If you suffer from migraine symptoms for 15 days or more each month, for at least three months, you will be diagnosed with chronic, rather than acute, migraine.

Other sorts of migraine include:

- Lower-half headache or facial migraine - common migraine that covers half of the face, involving the nostril, cheek and jaw.
- Migraine aura without headache - some sufferers of classic migraine gradually stop having headaches, but continue to experience aura.
- Status migrainosus - migraine that lasts longer than 72 hours. Symptoms of nausea and light sensitivity resolve after a few days but the headache persists.
- Abdominal migraine (recurrent stomach pains in childhood).

Migraine triggers

These vary, but commonly include:

- Dietary
  - missed, delayed or inadequate meals
  - caffeine withdrawal
  - certain wines, beers and spirits
  - chocolate, citrus fruits, aged cheeses
  - monosodium glutamate
  - dehydration

- Environmental
  - bright or flickering lights, sunlight
  - strong smells, eg perfume or gasoline
  - travel, high altitude
  - changes in weather or atmospheric pressure
  - loud sounds

- Hormonal
    - final menstrual period
    - menstruation or ovulation
    - oral contraceptives
    - pregnancy
    - hormone replacement therapy
    - menopause

- Physical and emotional triggers
    - lack of sleep or over-sleeping
    - illness, such as a viral infection or a cold
    - back and neck pain
    - arguments, excitement, stress and muscle tension
    - relaxation after stress

Source: Headache Australia