

مدينة دبي الطبية مبنى ٣٧
ص.ب. ٤٠٥٠٠، دبي الإمارات العربية المتحدة
ت +٩٧١ ٤ ٤٣٥ ٩٩٩٩
ف +٩٧١ ٤ ٤٣٥ ٩٩٠٠

Dubai Healthcare City, Building 37
PO Box 505004, Dubai UAE
T +971 4 435 9999
F +971 4 435 9900

cityhospital@mediclinic.ae
www.mediclinic.ae



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HEADACHE GUIDE



HEADACHES

Headache is a term that refers to a pain that is felt in or around the head and face. It may display various characteristics that will be detailed below. In reality, there is not just one type of headache, but rather numerous different forms of headache and each has its own characteristics and may require different treatment strategies.

Pain normally constitutes an alarm signal, a kind of alert, like an indicator that something is not working properly or that there is some kind of bodily problem. However, in most cases of headache, there is no need to worry since in only a small percentage is there a serious underlying problem. In the majority of cases, the headache is “primary” i.e. it is not caused by other underlying diseases, but rather constitutes the disease itself. Nevertheless, whilst it may not represent a danger to life, it can make it unbearable.

Getting familiar with the various forms of headaches represents an effective first step to understanding the problem. Once the type of headache is identified, this then allows identification of the weapons with which to fight them. Treatment can be with drugs or other treatments and aims to prevent the worsening of the quality of life caused by the recurrent headache attacks. It is most often the impairment of the quality of life that pushes the patient to ask for help, sometimes after many years of suffering.

The aim of this booklet is to give elementary information and education on the various types of headaches.

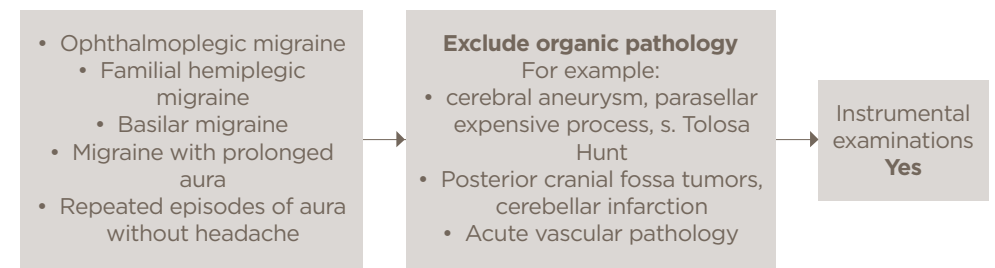
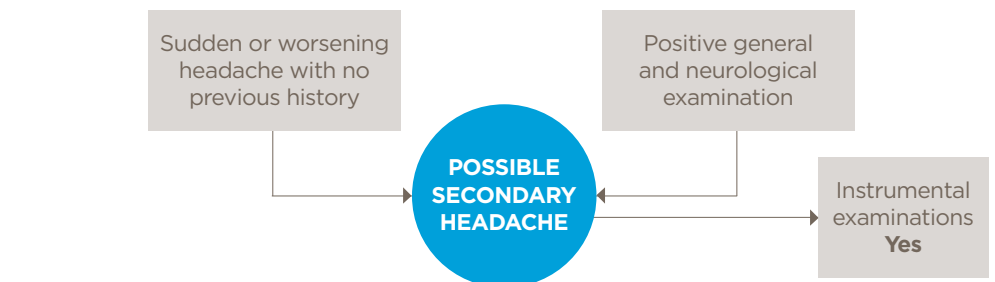
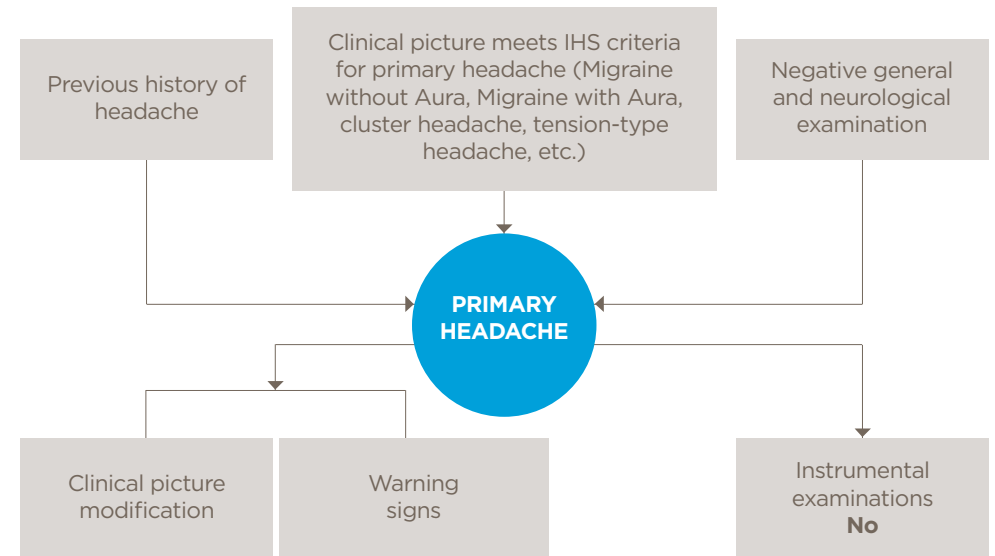
With the aim of distinguishing between “primary” headaches such as migraine, tension-type headache, cluster headache, and “secondary” headaches i.e. those linked or consequent to other pathologies. Also, it aims at providing useful advice to improve the quality of life for people suffering from headaches.

Nowadays, in order to properly manage headaches, a multidisciplinary approach is essential, with support from various different doctors and allied healthcare professionals. But it also requires the conscious participation of the headache patient, who wishes to be guided “with knowledge of the facts” in the diagnostic-therapeutic process. A complete recovery from headaches is not always achievable: however, headaches can be well-managed, and the situation much improved.

The neurologists at Mediclinic City Hospital’s Headache Centre offer a highly specialised profile in the field of management and treatment of headaches, according to international standards and the guidelines of the IHS (International Headache Society), EHF (European Headache Federation) and AHS (American Headache Society).

They work with a multidisciplinary team of experts, including: neuroradiologist, ophthalmologist, neurosurgeon, obs/ gynaecologist, ENT, rheumatologist, clinical psychologist, physiotherapist and headache-trained nurses, to provide a holistic and comprehensive evaluation and management of each individual case; having the “whole person” and not just the symptom, as the focus of the assessment and treatment.

Diagnostic-Therapeutic Algorithm



Clinical pathway

After observing the answers given on the questionnaires, and performing the neurological examination, any required tests (MRI, CT, EMG, EEG, blood tests, etc.) are evaluated, and the case will then be reviewed with the team specialists as needed, at which point it should be possible to refine the diagnosis.

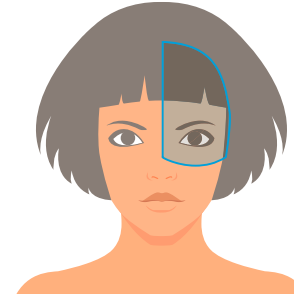
It should be highlighted here that the abovementioned investigative tests are not always indispensable: do not insist to have them from your doctor and do not feel disappointed or “betrayed” by him, if they are not prescribed; they may simply not be necessary.



MIGRAINE

Among the various forms of headache, after tension-type headache, it is “migraine” that is next most frequently diagnosed.

It affects about 12% of the population, with a marked predilection for the female gender.



• PRESENTATION

It consists of severe and recurrent attacks of headaches that may often affect only one side of the head (migraine means “half skull”) and which can last from a few hours to a few days.

The pain is often described as “hammering” or throbbing and, in many cases, it is accompanied by other symptoms: nausea and vomiting are frequent during the attack, as well as an excessive sensitivity to lights, noises or smells, in a way that forces the individual to go to bed, take refuge in dark/shady and isolated places, and avoid any physical activity that could aggravate his discomfort.

In a quarter of cases, there are symptoms (migraine with aura) that precede the actual painful crisis: these symptoms can be visual (flashes of light, sparkles, discoloration, milky spots, doubling or sometimes loss of vision), sensory (sensation of tingling and/or falling asleep in a half of the body), and/or difficulty in articulating/finding words. This constitutes the premonitory “aura”.

• FREQUENCY

The frequency of attacks varies: some individuals have few attacks per year, others may suffer several attacks per week. This variability is individual. However, an average frequency of 14/15 attacks per year was observed, with an average duration of around 18 hours.

• WHAT ARE THE CONSEQUENCES?

Frequent attacks considerably reduce the quality and social life of the patient who tends to isolate himself from the environment. This actually decreases his productivity (at work or at school) and can also push toward the abuse of analgesics. In the United States, every year, for migraines, 14 tons of aspirin are consumed and for the same reason, five and a half million working hours are lost.

• RISK FACTORS

There are factors that can trigger a migraine attack in some people: physical or emotional stress, relaxation on holidays (so-called

weekend headache) or after a demanding test, excessive and prolonged sleep or insomnia/lack of sleep, weather changes and sun/light exposure, hormonal fluctuations, are a few of the commoner precipitants.

Certain foods or beverages (chocolate, fermented cheeses, nuts, citrus fruits, sausages containing preservatives, alcohol, foods rich in monosodium glutamate (MSG) as sometimes found in Chinese cuisine) as well as certain drugs (for instance, some types of birth control pills) may be responsible for a migraine attack. Smoking, among its many contraindications, also produces a large amount of carbon monoxide in the blood, which reduces the amount of oxygen in the red blood cells. As the brain is deprived of oxygen, it triggers a series of biochemical phenomena that can cause the painful attack to be set in motion.

- **WHY DO WE SUFFER FROM MIGRAINE?**

A hereditary predisposition to migraine has been described. It is a disease that is characterised by a condition of neurovascular (nerve and blood vessel) dysfunction that makes the individuals particularly vulnerable to numerous factors capable of triggering painful attacks. That is, there seems to be a “migraine threshold” (lowered in those who suffer from headache) and a “migraine tract” to explain the predisposition.

It is documented that during a migraine headache there is a state of neuronal hyperexcitability that results from a genetically determined dysfunction of the cellular ion channels, affecting the neurons within the brain. Also, there is activation of the sensory afferents (nerves), with local release of neuropeptides (pain mediators) and production of oxidative stress. This state triggers vasodilation (opening and enlargement of blood vessels) and results in an increase in vascular permeability. The intra- and extra-cranial arterial blood flow is modified and multiple inflammatory-like molecules are released by the brain through the trigeminal nerve (such as Calcitonin Gene Receptor Peptide (CGRP)), which cause further trigeminal activation, leading to the onset of the painful headache crisis.

- **CONSULT YOUR DOCTOR**

By taking a detailed history and examining you, your headache specialist will be able to exclude other forms of headache, and help you to identify any triggering or relieving factors for attacks and thus will be able to prescribe the most appropriate therapeutic solutions for you.

Advances in research in the field of headaches have made it possible to identify two main categories of pharmacological therapy: the first is the symptomatic treatment for the acute attack, the second is

preventative, aimed at reducing the intensity and frequency of crises. With your help, your doctor will choose which one is most suitable for you and your case.

- **TYPES OF MEDICATIONS**

The different treatments offered have various levels of efficacy, targeting different pathways and brain structures. Don't be surprised if the specialist prescribes drugs that do not appear to be typical painkillers. Examples include antidepressant or antiepileptic drugs; in the right situation they can be highly active against headaches. In this regard, you must clearly distinguish the requirements:

- **For the acute phase** - to be taken only as needed if/as soon as/when pain occurs
- **For prevention** - i.e. to be taken for a longer but still limited time, generally for cycles of 3-6 or 12 months, repeatable, according to the indications of your headache specialist.

ACUTE PHASE:

For the treatment of an acute attack, various substances are available:

analgesics (pain killers) and classic anti-inflammatories, that block the perception of pain. Examples include paracetamol, acetylsalicylic acid or lysine salicylate, ibuprofen, naproxen sodium, diclofenac, indomethacin, and even caffeine. Older anti migraine agents which cause narrowing

of dilated vessels: ergotamine, dihydroergotamine, are nowadays rarely used.

Triptans: more specific options are triptans, which interact with two serotonin receptors on blood vessels stopping the ongoing mechanism of action of the migraine crisis. They offer an excellent acute therapeutic response. The most commonly used examples are: almotriptan, rizatriptan, frovatriptan, zolmitriptan, naratriptan, sumatriptan, and eletriptan. They can be given as tablets, nasal spray or subcutaneous injection.

Ditans and Gepants: these molecules are newer, and even more specific anti-migraine acute phase medications. They are highly selective and specific for a single receptor found on peripheral blood vessels. They can be considered in case of failure of triptans, or if triptans are not well tolerated or contraindicated.

PREVENTION:

In addition to the pharmacotherapy of the acute attack, it is then important to agree on the advisability of establishing migraine prevention.

Firstly, it is essential that the patient realises which situations are particularly stressful in order to avoid them. In this context, some relaxation and biofeedback techniques can be useful. If these measures do not lead to a substantial reduction in attacks, or if the attacks occur more than three

to four times a month, and are intense, prolonged and/or highly disabling, prophylactic pharmacotherapy is indicated.

There are various drugs with proven prophylactic activity, and their effectiveness must be proven at suitable dosages and for sufficiently long periods before one of them is replaced with another.

- **Oral medications:**

Beta-blockers which block the adrenaline receptors on blood vessels and prevent them from reacting. Examples include: metoprolol, propranolol or atenolol.

Calcium antagonists which affect the activity of the vascular muscles, such as flunarizine, cinnarizine and verapamil.

Anti-epileptic medications which stabilise the electrical properties of nerve cell membranes, like topiramate, valproic acid, gabapentin or lamotrigine.

Antidepressants which modify the activity of various neurotransmitters that modulate specifically pain (serotonin and noradrenaline): amitriptyline, clomipramine, dosulepin and duloxetine.

Muscle relaxants as tizanidine or sometimes benzodiazepines.

- **BOTOX®:**

For chronic migraine treatment. Botulinum toxin type A injections once every three months, as officially approved by FDA (Food and Drug Administration, in USA)

and EMA (European Medicine Agency, in Europe), following the official PREEMPT protocol, achieve a gradual but highly effective modulation of the afferents of pain, from the peripheral nerves connected to the brain (more than just inducing muscle relaxation!), without the risks of systemic involvement/side effects.

- **Nerve blocks:**

In selected cases it's also possible to modulate and reduce the frequency of the headache attacks with minimal invasive techniques, such as nerve blocks with local anaesthetics and steroids. Examples are the occipital nerve block at the back of the head and the SPG nerve block (Sphenopalatine Ganglion) through the nose.

- **Monoclonal antibodies:**

In the last few years, a novel, specific prophylactic treatment with monoclonal antibodies has been developed. These antibodies are able to block, in a very selective and safe way, one of the molecules responsible for the migraine attack called CGRP (Calcitonin Gene Receptor Peptide). Such treatments are already available and approved in the UAE. Examples include Erenumab and Galcanezumab as monthly subcutaneous injections, and Eptinezumab which is an intravenous infusion given every three months. It is likely that other similar molecules will become available in the near future.

- **Gepants:**

Small molecule able to target and antagonise the receptor of CGRP preventing migraine, without affecting the blood vessels.

Prophylactic therapy must be followed for prolonged and uninterrupted periods of a few months at least (typically three or six months, sometimes up to 12 months), so it is particularly important to evaluate the possible side effects for each individual patient. Moreover, since it is not possible to predict which drug and which dosage are most effective for the individual patient, a unique adjustment of the therapy could be necessary, making it more like a “bespoke” treatment.

It is worth noting that some drugs commonly prescribed for headaches have not yet obtained official approval from international or local regulators for specific use in headache patients. However, they may have been used in other areas and for other indications and conditions and so their effectiveness and safety is documented and established. In these cases, after doctor/patient discussions about relative benefits versus risks and side effects, it may be agreed to proceed with such treatment. Usually, informed consent forms will be needed before starting those selected treatments.

- **NON-PHARMACOLOGICAL APPROACHES**

In addition to pharmacological

(drug) therapies, preventive procedures include life-changing practices, such as improved sleep hygiene, regular meals, exercising, and avoiding known trigger for reducing migraine frequency can be employed.

Additional techniques such as physiotherapy and dry needling, relaxation exercises, cognitive-behavioural therapy (CBT) techniques, biofeedback/ neurofeedback, acupuncture, can all contribute to the prevention of migraine headaches.

Ideally a mix of pharmacological treatment with non-pharmacological options is most likely to achieve the best and longest lasting results.

- **Biofeedback/Neurofeedback**

Biofeedback is a noninvasive method of measurement of physiological functions. Precise instruments measure the slightest changes of different body functions. The person gets an insight into what is going on inside the body and thus learns to change patterns of behavior to improve health and performance. Biofeedback is a common intervention in pain management.

For migraine treatment, the most frequently used biofeedback methods have been peripheral skin temperature biofeedback, blood-volume-pulse feedback, and electromyography feedback.

Neurofeedback is a method of obtaining feedback on brain processes, that is, a type of training that observes brain-wave activity and is presented to the individual through the screen of a monitor. The neurofeedback method functions as a “mirror that you hold in front of the brain.”

Sleep Hygiene

Concerning sleep, it must be based on regularity: i.e. you should sleep ideally seven hours a day \pm one hour, apart from some exceptions, and avoid “naps” during the day.

In fact, the regularity of sleep must be maintained especially at the weekend. If you are used to getting up at 6am on weekdays, at most, even on weekends at 8am you should already be up and active!

Lack of sleep can be one of the triggers of migraines. Going to sleep very late at night, after spending prolonged time in front of electronic screens, can be counterproductive.

• SUGGESTED DIET FOR PATIENTS WITH MIGRAINE

Having a healthy diet is a common recommendation for general good health. In contrast, certain types of food or drink, as shown below, should ideally be limited or even avoided, since they may be possible initiators/triggers of migraine headache. Such foods can contain

components that can act as “false neurotransmitter”, able to reach the brain, and to trigger a migraine attack in predisposed individuals (e.g. tyramine in certain cheese or sulphites in wine/smoked foods). In fact, maintaining an adequate diet does not in itself mean definitively defeating migraines; it is a matter of avoiding, as much as possible, possible food triggers.

For other types of headache, effectiveness of exclusion diets has not been demonstrated.

• NEURO STIMULATORS (devices)

In terms of non-pharmacological treatment, there are also FDA (Food and Drug Administration, in USA) and EMA (European Medicine Agency, in Europe) approved devices, to be used to treat or to prevent migraine attacks.

Non-invasive, neuromodulation devices are advanced medical tools that use electrical currents or magnets to adjust or alter the activity of the nervous system. Most of these devices are small, portable, pocket-sized or wearable devices that the patient can use any time they are needed. In rare instances, particularly for refractory, intractable cases, other type of devices can even be implanted with a neurosurgical procedure. These devices can be used as an early therapy, either independently or concomitantly with pharmacological treatment.

It is difficult to predict which patients will be most responsive to these devices, but they could be a reasonable option for those who have health issues or conditions that prevent them from taking medications, tolerance issues with medications, or for those in sensitive patient populations (e.g. pregnant women or adolescents), where pharmacological options could be limited or not available.

MENSTRUAL CYCLE, HORMONES AND MIGRAINE

Hormonal changes can also trigger a migraine attack. This is the reason why many women suffer from migraines after puberty during their menstrual period. However, not all migraines that strike near the menstrual cycle are menstrual migraines. Your headache specialist should outline the clinical characteristics and any appropriate therapies.

What is known is that migraine is a disorder that affects women more frequently than men only after puberty, but which has an equal distribution between males and females before pubertal development.

The difference between the two genders is undoubtedly attributable to the complex role played by female hormones, in particular estrogen, in the mechanisms that trigger migraine attacks with pubertal development.

Migraine with onset at the menarche (first menstruation) tends more often to have a menstrual periodicity over the years, and is favourably influenced by pregnancy and menopause. Furthermore, fluctuating estrogen levels could explain this phenomenon, given that the onset of menstrual flows is accompanied by cyclical changes in these hormones, while pregnancy and menopause are associated with hormonal levels that respectively increase or decrease continuously, with stable levels in the bloodstream, and no longer fluctuating in cyclical manner.

In women, these headaches are often linked to the menstrual cycle (migraine crises during menstruation, like in “menstrual migraine”) and can regress during pregnancy, especially upon entry into the 2nd-3rd trimester of gestation. Unfortunately, migraines tend to return quickly during the puerperium, especially when breastfeeding of the newborn is not undertaken, or is stopped early.

The use of oral contraceptives, especially if prolonged, can favour the onset of migraine crises, more often in women with familiarity with migraine, especially related to the menstrual cycle. The worsening that can eventually be observed while taking the pill is often, but not only, related to the week-off the contraceptive; a period in which migraine crises are

concentrated, apparently due to the sudden drop in circulating estrogen levels that occurs at this time.

Conversely, women who suffer from migraine mainly in the menstrual cycle-window or in the premenopausal period, can benefit from prolonged pharmacological hormonal modulation, which, by restoring a correct hormonal rhythm, significantly reduce the number of migraine crises.

It would seem preferable to use formulations with a low or very low dose of estrogen, of the monophasic type (because they guarantee more constant hormone levels) or even better with a progestin-only oral contraceptive, with a lower androgenic activity.

In addition to the classic acute and preventative treatment for menstrual migraine attacks, great interest is focused on the hormonal modulation of migraine through innovative contraceptive-hormonal preparations. The availability of such medications must be verified in each country and includes transdermal contraceptive patches or subcutaneous slow-release implants. The low level and the great stability of plasma hormone levels, as well as the possibility of continuous administration without a break, make the patch and the subcutaneous implant two very effective strategies for controlling migraine and menstrual-related headache.

In females, especially if the painful crises have had a very close correlation with the menstrual cycle during life, menopause is usually associated with the disappearance of the migraine, more or less around 50 years of age. Unfortunately, in a percentage of cases, migraines tend to improve, but not completely disappear. This is probably due to the fact that estrogen continues to be produced in a variable way and may conspire with other factors to continue to trigger migraine crises.

On the other hand, a completely separate case is represented by those female patients, who suffer from a type of headache called "Migraine with Aura". In such patients, the use of estrogen-progesterone contraceptives is not recommended, especially if in combination with other cerebrovascular risk factors, such as smoking or obesity or coagulation defects with a tendency to venous thrombophlebitis.

TENSION-TYPE HEADACHE



The most frequent type of primary headache, tension-type headache is usually felt as a widespread pain. It is a type of headache that will have affected most people, at some point in time. It comes mostly after certain typical circumstances, such as a tiring or stressful day, after a long journey, or a heated discussion.

• HOW IT MANIFESTS

It is a pain defined in various ways: "circle above the head", "hood or helmet on the head", "sense of heaviness above the eyes". It is typically of moderate or mild intensity, which accompanies the individual throughout the day, limiting only part of his or her normal activities. It is usually not much aggravated by physical efforts. It is not always associated with pain in the neck muscles, although it is not uncommon to experience additional soreness/stiffness of the neck muscles.

It can be associated with mild nausea (particularly in chronic forms), sometimes with annoyance from lights and noises. The duration is very variable: from half an hour to weeks or even months.

• WHAT ARE THE POSSIBLE CAUSES

Some individuals can suffer from this type of headache in a chronic way, not strictly related to triggering events. Ultimately it is likely to be a disorder of local muscle tension.

There are different conditions that can trigger a tension-type headache in these cases: bad dental occlusion and temporo-mandibular joint disorder, an obligatory or prolonged posture of the head and neck, protracted stressful situations, states of anxiety or depression. Overuse of painkillers may also be a cause of chronic tension-type headache.

• CONSULT YOUR HEADACHE SPECIALIST

Through a targeted interview, he will reach a quick diagnosis, researching together with you all the possible conditions that might be the cause of your headache. Finally, he will be able to prescribe the most suitable therapy for you, possibly referring you also to allied healthcare providers, such as physiotherapist or complementary medicine specialist, for a more integrated and holistic approach.

• TYPES OF DRUGS

The proposed therapies are different and varied. Do not be surprised if your doctor advises you to take some muscle relaxants and antidepressants as each drug has specific routes of action and specific targets, based on the dosage and method of administration. It is important to follow the advice of your doctor.

Once again, non-pharmacological approaches can be very useful

in tension-type headache. Physiotherapy, acupuncture and dry needling, relaxation exercises, cognitive-behavioural techniques (CBT), and biofeedback could all be of great benefit, addressing some of the possible underlying reasons/triggers.

- **PHYSIOTHERAPY**

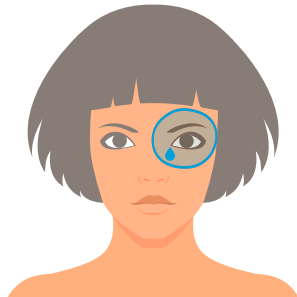
In tension-type headache and cervicogenic headache, there is often the co-existence of postural problems (office workers prolonged sitting postures, post traumatic injuries after whiplash, drivers, etc.). In such cases and where there is an imbalance in muscle function, this could become a true postural trigger, with a direct link to these headaches. Treatment consists of mobilisations and manipulations of the upper cervical spine (C1-3), trigger point therapy and dry needling (DN) of affected muscles. In addition, stretching and strengthening and postural retraining can be very effective.

Temporo-mandibular joint (TMJ) dysfunction can be an un-noticed physical trigger for headaches and tension-type headache. Temporo-mandibular joint noises, reduction in bite force, limitations in mouth opening and deviation of the mandible during mandibular movements are all common symptoms of TMJ dysfunction; 39%

of the general population have one sign or symptom of TMJ dysfunction. This can lead to a reduction in the mandibular function with consequent muscle hyperactivation, myofascial inflammation and contractions, with pain and headaches as the end-result. Treatment includes manual therapy of the TMJ and the cervical spine as well as soft tissue techniques and exercises.

CLUSTER HEADACHE

This is the rarest type of the primary headaches, but the most painful one. It affects about seven out of 10,000 people, mainly men.



- **WHY IS IT CALLED SO**

It is defined as “cluster” since the attacks occur in a series, or clusters, lasting weeks or months, separated from each other by well-being periods that can last for months or years.

- **HOW IS IT MANIFESTED**

It is a very intense and violent headache, excruciating, and usually located in the eye or behind/above the eye itself. It is associated with tearing, redness of the eye and conjunctiva as well as an obstruction of the nose on the same side. These symptoms are normally due to a dilation of the local blood vessels.

During the attack, the individual is unable to remain still and keeps moving incessantly. He also seems almost unable to listen to any advice or follow any acute therapy, due to being overwhelmed by the pain.

- **HOW LONG CAN IT LAST**

Each single attack can last from 15 minutes to three hours maximum, followed by self-resolution. It can recur several times in the same day, typically always at the same times and often during the night, with a pain that will wake the patient.

- **HOW TO RECOGNISE IT**

The essential characteristics of cluster headache are represented by a violent and intense unilateral pain, so that some patients may even experience the desire to commit suicide (this is how it has earned the nickname of suicide headache). The agitation and restlessness of the patient during the attacks as well as important accompanying symptoms

affecting mainly the eye and eyelid are classic and help with diagnosis.

- **CONSULT YOUR DOCTOR**

Once the diagnosis is made, your headache specialist will prescribe drugs capable of stopping the attack in the acute phase and also some other drugs that could prevent further painful crises.

- **TYPES OF DRUGS**

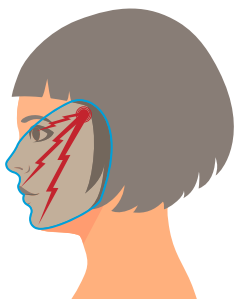
The drugs prescribed in the case of cluster headaches include steroids, cardioactive drugs, anti-epileptics, and lithium as prophylaxis therapy. For the acute attack management treatments include high flow oxygen therapy, sub-cutaneous triptans, and inhalers with anaesthetic/analgesic for fast onset. Recently, approval was obtained for a monoclonal antibody, anti-CGRP drug, able to prevent cluster headache. It is used sub-cutaneously every month, and typically taken for a few months. Moreover, in the case of cluster headache, no confusion should be made between therapy for the “acute” and “chronic” state.

It is essential to avoid potential triggers, such as alcohol or naps during the day, during a “cluster period”. In very rare cases, refractory to all pharmacological therapies, it is possible that a functional neurosurgical approach, to provide

deep neurostimulation, may also be indicated.

TRIGEMINAL NEURALGIA

This is a rare form of headache, more typical of adults or the elderly. It is very disturbing due to the intensity of the pain and the resulting loss of quality of life if not treated.



• WHY IS IT CALLED SO

The name derives from the short, dense, pain type, which radiates along the territory of the trigeminal nerve. This nerve is responsible for the sensory innervation of the face. The trigeminal nerve is so called due to its three branches: an upper one for the innervation of the forehead and eye, a middle one for the perizygomatic region (cheek) and root of the nose, and an inferior branch for the peri-mandibular (jaw) and peri-lower labial (lower lip).

• HOW IS IT MANIFESTED

Trigeminal neuralgia is characterised by repeated unilateral attacks of

pain of very short duration during the day, similar to electric shocks or violent pangs that end abruptly, and always localised to one side of the face or head. The pain is often triggered by touching the face as in washing or shaving for example (so-called “trigger zones”), or by talking, laughing or chewing food, but it can also have a spontaneous onset.

• HOW LONG CAN IT LAST

Attacks are always extremely short, from a few seconds to two minutes maximum for each painful attack.

• HOW TO RECOGNISE IT

The appearance of attacks of violent pain, brief but unbearable, evoked by movements or contact with the face, without nausea or vomiting or other symptoms, and associated with an unpredictable course, will immediately guide the headache specialist towards this diagnosis.

• CONSULT YOUR DOCTOR

The headache specialist will usually arrange a diagnostic scan aimed at excluding significant intracranial causes (for example due to small arterial anomalies which by coming into contact with the nerve can irritate and inflame it) and, subsequently, will be able to prescribe the most suitable therapeutic strategies.

• TYPES OF DRUGS

The most commonly used drugs in trigeminal neuralgia are neuronal

membrane stabilisers and anti-epileptics, as well as some antidepressants active on the pain threshold. Local application of specific patches can provide further pain control. In selected cases, not responsive to medical therapies, or caused by underlying vascular malformations, neurosurgical treatment may also be indicated.



DAILY CHRONIC HEADACHE & EXCESSIVE USE OF DRUGS

Chronic daily headaches consists of a heterogeneous group of headaches unified by their temporal course with pain in the head for more than 15 days a month, for at least three consecutive months.

Migraine, over time, can naturally become chronic migraine, especially when left untreated. It can reach the

frequency of more than 15 days of headache each month, for more than three months with at least eight proper migraine pain attacks.

In certain cases, one frequent cause of chronicity of an episodic migraine, is the prolonged and protracted intake of “symptomatic” drugs (i.e. those medicines that should be taken in the acute phase, and not the preventative ones!). The development of drug dependence on analgesics and anti-migraine drugs is insidious, making it difficult to assess the extent of the problem. Population studies report a prevalence of abuse/overuse medication headache at around 1-2% of the general population.

The abuse of these drugs is almost always the result of self-managed therapies or poor compliance, that is, non-compliance with medical prescriptions.

Headache reliever drugs work well when taken occasionally, but, when taken too frequently, most of them can end up triggering a “rebound” pain-reliever headache and a progressive increase in headache frequency. When it reaches this stage (analgesic abuse), excessive use of analgesic drugs can turn an episodic headache into a chronic daily form, called “medication overuse headache”. It should be kept in mind that the abuse of analgesics, paradoxically, is precisely the cause of the chronicity.

TYPES OF TREATMENTS

The therapy of chronic headaches is peculiar and sometimes hospitalisation could be necessary to detach the patient from drug-abuse.

The best and only way to treat overuse medication headache is to stop taking the overused drug. While some drugs can be stopped abruptly, others, such as barbiturates or benzodiazepines, need to be progressively reduced to avoid a withdrawal syndrome, which can sometimes be dangerous. Within a few weeks of stopping the drug, the patient usually begins to feel better and to respond appropriately again to the preventive drugs.

Most patients with chronic migraine or overuse medication headache require pharmacological prophylactic treatment. Very good data has come from international studies regarding the effectiveness of BOTOX or anti-CGRP monoclonal antibodies, in the treatment of such cases.

SYMPTOMATIC HEADACHE

In certain cases (but much less than 20% of all headaches) the headache represents a symptom: hence, it is not a pathology in itself, but a signal of an “underlying” problem.

These include ‘minor’ diseases, such as sinusitis, fever, cervical osteoarthritis, head trauma, respiratory diseases, arterial hypertension, eye/ear/tooth disorders and, rarely, ‘serious’ diseases,

such as increased intracranial pressure, meningitis, cerebral hemorrhages or venous thrombosis, or vascular malformations like an aneurysm or brain tumours.



On a lighter note, the excessive intake of some substances (alcohol, coffee, some drugs) can cause or worsen headaches, as can fasting, altitude, dehydration and a number of other factors.

CONSULT YOUR HEADACHE SPECIALIST

As you can see, the extreme variety of causes of headache requires you to speak to your doctor.

Do not dramatise, but do not try to self-diagnose and cure yourself! Your doctor at the headache centre is the best person to judge your headache, to request any tests and to provide you with the most ideal treatment for your problem, if not the definitive solution to the problem.

It is to be noted that the diagnostic-therapeutic process in the case of



symptomatic headaches is different and in general more complex than the one followed in the presence of a so-called primary headache. It may be that, in such cases, your neurologist will need different laboratory or instrumental / neuroradiological tests, or the intervention of other specialists, to better understand these forms of secondary headache.

For this reason our headache centre offers a multidisciplinary approach, collaborating on a daily basis with: neuroradiologist, ophthalmologist, neurosurgeon, ob/gynecologist, ENT, rheumatologist, clinical psychologist, physiotherapist, and complementary medicine specialist.

Our headache centre is always at your disposal.

Let us conclude by reassuring our patients suffering from headaches:

nowadays the old adage: “you have to live with your headache!” is no longer valid.

In the preceding pages it is obviously impossible to mention and detail everything we would have liked to. Nevertheless, our message wants to be, above all, reassuring and aimed at strengthening patient compliance and understanding, whilst at the same time optimising the doctor-patient relationship.

The doctor who deals specifically with headaches is now a reality, available for all patients in order to improve, above all, their quality of life.



Dr. Alessandro Terruzzi
Headache Centre,
Neuroscience Dep.,
Mediclinic City Hospital
Dubai