At any age, generalised muscle aching may develop acutely. It is often accompanied by other, often viral, symptoms such as fever, shivering, nausea, fatigue and lassitude. It is a common features of colds, ‘flu and any number of other viral illnesses including glandular fever. Normally the aching subsides as the infection is overcome although sometimes it may persist for a significant period. It may also occur with bacterial infections.

So what is happening to cause the aching? The answer is that the result is probably multifactoral. The body’s immune system is working hard to fight off millions of viral particles. It must be remembered that, whereas bacterial infections exist and multiply in the fluid that surrounds the body cells, viruses actually enter the cells. The viruses multiply and viral RNA (ribonucleic acid) enters the cell’s nucleus and it is converted to replicate more virus. The new viral particles are released into the body and the cell is either destroyed or may continue to manufacture new virus. Cell destruction may be associated with inflammatory change which in turn may lead to generalised aching. Furthermore the body manufactures antibodies to destroy viruses and they promote the release of histamine which dilates blood vessels and induces inflammatory changes. The histamine circulates generally and in muscles are receptors which respond to histamine to trigger pain receptors. Other biochemical agents called cytokines are also released during an immune response and can trigger biochemical pathways that influence pain receptors. On top of this, the raised temperature which accompanies infection increases demand for fluid and dehydration often occurs which causes aching too.

It is an interesting hypothesis that aching and other symptoms of infection may be an evolutionary mechanism to minimise illness within a group by making the sufferer less mobile and with less urge to be active.

What about more chronic generalised aching?
As adulthood progresses some people develop more generalised aching. There may be a number of causes. The most common unsurprisingly is **musculo-skeletal causes**.

1. **Arthritis.** Many people, particularly over the age of fifty, complain of aching joints and it is dismissed as arthritis. Of course it commonly is but there are different forms of arthritis and, normally, they do not cause generalised aching. Osteoarthritis and **rheumatoid arthritis** normally have different and distinct presentations. Careful questioning by the doctor will reveal that there certainly is aching but that it is not generalised. In general osteoarthritis affects principally the weight-bearing joints such as the hips, knees and spine. Rheumatoid arthritis presents differently and affects the small joints of the fingers and hands. Septic arthritis can affect any joint which becomes infected and, in septicaemia, a number of joints may be involved. Gout normally only affects one joint as a result of the accumulation of uric acid. Classically it is the great toe but other joints such as the knee, the wrist or any other joint may suffer attacks. However, almost invariably the differential diagnosis is made by a combination of X-ray and investigation and it is virtually never that the disease is extensive such that it gives the impression of causing aching all over.

2. **Fibromyalgia.** Is a common condition affecting about one in 25-30 people. Sufferers hurt all over. It used to be called muscular rheumatism and the term fibromyalgia is relatively new. Pain, muscle stiffness and tenderness are the characteristic features and may be accompanied by varied symptoms including fatigue, insomnia, headaches, anxiety and depression. Muscles may be tender to touch. The condition is most common in middle-aged women. The pain is often difficult to control and may need more powerful analgesics even including codeine, fentanyl and, on occasion, even morphine. Antidepressants such as amitriptyline, duloxetine and fluoxetine may be helpful. A variety of other medication may be used.

3. **Chronic Fatigue Syndrome.** This condition, also known as myalgic encephalopathy causes fatigue which may feel overwhelming but, particularly in more severe cases, pain in muscles and joints with an overarching feeling of debility. It may be a post-viral disorder or may follow an accident or operation. Some authorities suggest it is caused by a disturbance in the immune system whilst others cite the sometimes occurring familial features and therefore suggest that there may be a genetic component. Diagnosis is made on the basis of a persistent fatigue with generalised aching, palpitations and headaches that is not associated with any of the other causes of similar symptoms. In its mild form it does not stop the sufferer carrying out day-to-day functions. In its severe form the sufferer is virtually immobilised and unable to do even simple tasks such as washing. Symptoms associated with exercise are often severe. Treatment may be by graded exercises and support to resume normal daily activities. Changes in lifestyle may help as may the avoidance of caffeine containing drinks. Medication in the form of muscle relaxants, analgesics, antidepressants and symptom specific agents may also help. The pattern of the disease varies from intermittent exacerbations and remissions, for more severe and disabling longterm symptoms.

4. **Polymyalgia Rheumatica.** This disease is characterised by chronic, longlasting generalised muscle pain and stiffness, characteristically affecting the shoulders, neck and hips although other areas may be involved. It is rare under the age of fifty and is twice as common in women. It may be difficult to diagnose but is identified, partly by the absence of symptoms of other conditions and partly by the confirmation by blood test of inflammatory change. Genes have been identified that make

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patients more susceptible to the disease. Viruses are also implicated in some cases of the condition. About one in six people develops a complication called giant cell arteritis which is an inflammation of the arteries of the head and neck. The symptoms are tenderness of the scalp, severe headaches, visual disturbances including blurring and even loss and painful cramp-like symptoms in the jaw muscles. The condition may be treated by anti-inflammatory drugs such as ibuprofen. Amitriptyline may help too. If, however, the symptoms are worse, treatment with steroid drugs may be necessary and the drug prednisolone is the most commonly used. It works by controlling the inflammatory response and it is used in initially high dosage to control the symptoms and is then progressively reduced to reach the lowest stable dose consistent with controlling the symptoms. Some patients may remain on prednisolone for months or even years. In many people the symptoms resolve although in some they do recur. Steroids do have significant side effects causing weight gain, moon face, reduced resistance to infection, osteoporosis, gastric ulcers and raised blood pressure. For a few patients the symptoms are such that treatment is with the anti-mitotic drug methotrexate (which may also be used in some types of cancer). Its mode of action is not understood and not always successful.

5. Lupus Erythematosus. Lupus is a mystery illness which damages body tissues and may be mild or life threatening. 90% of sufferers are women of child-bearing age. It is an auto-immune condition which means that the body produces inappropriate immune response against its own body tissues. Genetic and environmental factors have been implicated but it is not fully understood. There are three principal types of lupus but systemic lupus erythematosus, which can attack most body tissues; joints, skin, kidneys, muscles, blood, heart and lungs, usually presents with joint pains, often generalised, fatigue and rashes. The pain and the fatigue may compromise daily living. The joint pains move from joint to joint. The rashes are usually seen on the face, where they may produce a butterfly pattern, on the lower arms and hands. The condition may be difficult to diagnose but is recognised clinically and the diagnosis is supported by tests which reveal immune deficits. Treatment is by anti-inflammatory drugs, muscle relaxants and anti-depressants. The anti-malarial drug hydroxychloroquine is used to control the rashes and muscle and joint pain. Steroids may also be helpful. Immunosuppressant drugs are also employed, such as cyclosporin, methotrexate and cyclophosphamide there has also been some success with the newer drug rituximab which is used where the condition is resistant to other treatments. Modern treatments have helped patients back to normal or near-normal lives.

5. Systemic disorders such as thyroid disease and diabetes mellitus. Diseases affecting the hormone systems may cause generalised effects. Hypothyroidism (deficiency in thyroid hormone) results in a general slowing of the body’s functions with a variety of symptoms including lethargy, weakness, fatigue coarseness of the skin, which becomes dry, depression and irritability. In hyperthyroidism, the opposite problem occurs and, as a result of too much thyroid hormone, the body metabolic rate speeds up with irritability, agitation, fine tremor, tachycardia (rapid heart rate), sweating and the development of other cardio-vascular abnormalities. In both diseases generalised aching may be a feature. The condition is managed by treatment of the over- or under-production of the thyroid hormone. Diabetes is a complex topic and the condition results from failure to produce sufficient insulin to enable the body to control glucose metabolism. The result is a range of signs and symptoms which can include generalised features of ill health with aching and fatigue. The treatment of the
symptoms is the effective management of the disease.

6. **The Menopause.** 80% of women will suffer menopausal symptoms as they pass through the period (the perimenopause) when the ovarian function declines. It commonly occurs between the ages of 47 and 53 but may be earlier or later. It may be associated with a host of symptoms including flushing, depression and sweating (the most common three) but also anger, irritability, tearfulness, depression, mood swings, tiredness and generalised aching. The menopause occurs at a time of life when other disorders may develop and so it is important to ensure that none are associated with unrelated medical problems. The management of the menopause is with symptomatic relief and with various hormone replacement treatments. ‘Hurting all over’ is not usually a predominant problem with the menopause.

7. **Depression** is associated with a variety of symptoms including feelings of negativity, loss of emotions, restlessness, irritability, insomnia, lack of energy, forgetfulness, tearfulness, loss of concentration and insomnia, headache, dizziness and generalised aching. It is difficult to do justice to the management of the disease in a piece about generalised pain and, for many, though present, it is a lesser problem. However it is commonly a feature and is normally treated symptomatically. It may improve spontaneously with improvement in the symptoms of depression with medication or the various types of supportive therapies which are available.

Of course many of us suffer from generalised aches and pains which are not specifically associated with any particular pathology. They may be associated with tiredness, with stress or with a period of low mood. As we get older aching also becomes a feature of activity after a period of sitting or lying down.

If the symptom persists for a significant time then it might be wise to consult the GP simply to establish that it does not represent one feature of another disease. Assuming that an examination and, where appropriate, simple tests reveal no abnormality, it is often appropriate to review lifestyle. Introduce some graduated exercise, starting perhaps with fifteen minutes a day of walking and extending it by five minutes every day or two until the time reaches forty minutes. Build in some more energetic activity; It is good to raise a sweat a couple of times a week. Look at your diet. If being overweight is a problem, try to lose some pounds; doing so may ease the symptoms significantly. Try to eat healthily; it doesn’t have to be boring or an expensive option. Excessive alcohol consumption should be curtailed and smoking stopped.

Perhaps the worst aching is the ache that follows emotional turmoil, lost love, the ravages of fate, grief and bereavement. Probably time is the only cure for that.

Pain has been a topic much discussed and documented since the time of the ancient Egyptians. I refer you to Piet Hein, Danish mathematician, inventor, designer, author and poet, who combined the physical and emotional aspects of pain and wrote:

> Stomach ache can be a curse  
> Heart ache may be even worse  
> So, thank heaven on your knees  
> if you’ve got but one of these.

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