

## *BELLARIA XXXI*



### *DERIVATIONS (4)*

The next few *Bellaria* will range far and wide over words whose roots lie in Latin and Greek, and were taken into English.

As far as the West is concerned, Hippocrates (5th C BC, from Cos) invented the language of medicine—from prognosis to diagnosis, from phlegm to haemorrhoids. He was enormously famous in the ancient world and is regarded as the father of ‘rational’ medicine. All that means is that he attempted as best he could to use evidence and experience to analyse and explain illnesses rather than to regard them as incomprehensible divine visitations.

When Romans made Greece a province in the second century BC, they were captivated by Greek culture and thought, and fascinated by their medical expertise. The Roman encyclopedist and doctor Aulus Cornelius Celsus (c. 25 BC-AD 50) is the key figure here. In *de medicina*, he basically latinised Hippocratic medical terms: so Greek *stomakhos* (στόμαχος), 'gullet, stomach', became Latin *stomachus*. Other Greek terms he replaced with the Latin equivalent, e.g. Hippocrates called cancer *karkinos* (καρκίνος), Greek for 'crab'. Celsus gave it the Latin name for 'crab', *cancer*, but also used *carcinoma*. Both terms covered a wide range of ulcers, tumours and growths. Apparently, the name 'crab' derived from the look of a malignant tumour which had had its top sliced off.



Hippocrates and Hygieia, goddess of health

## Doctors

The *doctor* (Latin *doceo* (*doct-*) 'I teach') was simply a teacher or trainer. After the fall of the Roman Empire in West in the fifth century AD, the church became the main deliverer of education. So monks were all *doctores*. They also delivered health care.

However, in the Middle Ages the church refused to allow monks to do surgery. This therefore fell to their barbers, whose job was to keep the monks' tonsure well shaven and who had a handy way with sharp instruments. Over time, a distinction between titles developed: monk *doctores* delivering general health-care continued to be called 'doctors' even if they did not teach, while barbers became surgeons (see below) and have been called 'Mr' ever since.



This will hurt...

### Surgeons

Celsus talked of lesions that could not be cured by medicines needing ‘the help of hands’. What he meant was surgery (a rough and ready business: ‘whatever you do, do it quickly’ was the main ancient advice). The Greek for a surgeon was *kheirourgos* (χειρουργός), which meant a hand (*kheir*) worker (*ergon*, ‘work’, → *energy*), i.e. an expert in handiwork. In Latin it became *chirurgus*. Our ‘surgeon’ comes from this word, via French for a surgeon, *chirurge*.

### Obstetricians

Seneca described a man ‘running anxiously after an *obstetrix* to attend to his daughter in labour’. Obstetricians were not only midwives but also female— hence the *-ix* ending. The word is based on Latin *obstô*, basically ‘I meet face to face’, but, more importantly, with strong overtones of keeping people (especially men) away; it also meant ‘I form a barrier to, block the path of, form a screen for’, surely essential at this most vulnerable time of a woman’s life.



Here is your delivery

### Nurses

The derivation of ‘nurse’ is from Latin *nutrix* (*nutric-*), a word derived from *nutrio* (*nutrit-*), ‘I nourish, bring up’ (→ ‘nutrient’, ‘nutricious’ etc.). It probably derives from a PIE word meaning ‘suckle’. The *nutrix*, in other words, was primarily a wet-nurse. In the case of Romulus and Remus, mythical founders of

Rome, the *nutrix* was a wolf. Ovid talked of night as the ‘most powerful *nutrix* of anxieties’—nourishing them and encouraging them to grow.

‘Nurse’ came to mean someone concerned generally about health in the sixteenth century.

### Patient

Anyone who is ‘patient’ puts up with things (Latin *patior*, ‘I am subjected to’) and in Latin *patiens* meant ‘able or willing to undergo, bear, support, stand up to’ an experience. You certainly had to be able to do that under ancient medical care, though *patiens* was not used of patients then. The ancients did not pull their punches: the Latin for ‘the patient’ was *aeger*—‘the sick’.

### Clinics

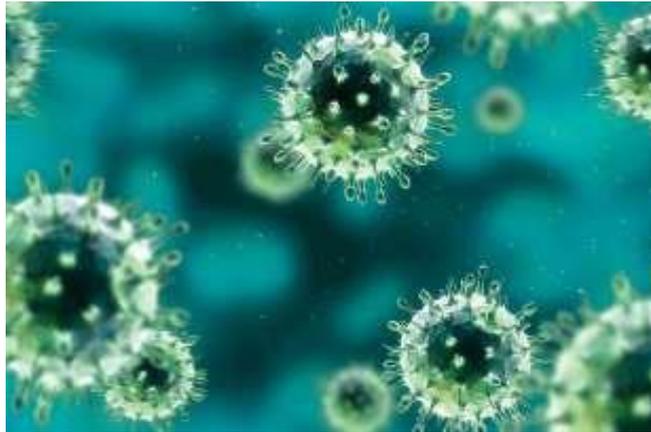
Romans did not have clinics, but they did have clinical physicians (*clinici*), who attended patients in bed. The Greek *klinê* [κλίνη] meant something you lay on, e.g. bed or couch, from *klinô* (κλίνω), ‘I lean’ (→ Latin *reclino*, *declino*, etc.). The meaning ‘clinical’ as in ‘coolly dispassionate’ is a twentieth century usage; the language of the medical profession is also called in aid to soothe the effect of killing people with ‘surgical’ strikes.



Clinical skills

### Germ

For us, a ‘germ’ can be good or bad: medically bad, the ‘germ’ of an idea, however, is good. It is this latter meaning that Romans would have understood, since *germen* (*germin-*) meant in Latin ‘shoot, sprout’, → germinate, etc. Its use in the bad sense dates from as late as 1871; but doctors, consulting their Latin dictionaries, realised this was a mistake and in 1880 invented the technical term ‘pathogen’ to replace it, based on Greek and supposed to mean ‘producing suffering’.



Germs busy not germinating but splitting

### Inoculation

This was originally a botanical term. Pliny the Elder described the process of inoculation as follows:

It consists in opening an 'eye' [Latin *oculus*] in a tree by cutting away the bark with a tool resembling a shoemaker's punch and enclosing in it a seed that has been removed from another tree by means of the same tool. This was the method of inoculation used in old days in the case of figs and apples; the method described by Virgil [in *Georgics*, his treatise on farming] is to find a recess in a knot of bark burst open by a shoot and to enclose in this a bud obtained from another tree.

Getting your eye in, in other words.

That was then. Nowadays, it is a medical term, referring to a system of preventing disease by introducing into the skin killed, weakened, or antigens of the, pathogen in question.

### Mithradates' treacle

Pompey found and brought to Rome the recipe for a famous 'universal antidote'. 'Antidote' derives from Greek *antidotos* [ἀντίδοτος], 'given (*dot-*) in place of, as a remedy for (*anti-*)' → Latin *antidotum*. It was devised by Mithradates VI (the troublesome king of N. Turkey). The recipe was given the Greek name *thêriakê* (θηριακή) 'to do with wild animals', as a remedy against their bites. It gives us our 'treacle': Greek *thêriakê*: late Latin *theriaca*, with an assumed diminutive form *theriacula*; Vulgar Latin *triacula*; Old French *triacle*; Middle English 'treacle'.

### Stick at it

Bacteria and bacilli are all over the place. The Greek *baktêrion* (βακτήριον), latinised in the nineteenth century to *bacterium*, meant 'little staff, cane'. The Latin *bacillum*, a type of bacterium, also meant 'small stick, staff'. These bugs that stick it to us all the time were given their names because they both looked

like small rods. Purists will note that scientists have turned the Latin neuter noun *bacillum* into a masculine one *bacillus*.

Incidentally, there are also round and spiral-shaped ones.

### Penicillin envy

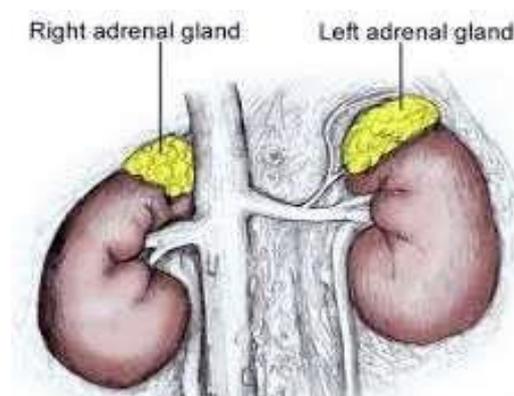
One would imagine the distinction between ‘penis’ and ‘tail’ was fairly obvious, but Latin *penis* referred to both. Cicero in a letter said that *penis* ‘tail’ was originally used of the penis as a euphemism; ‘but nowadays it is an obscene word’. *Penicillus* meant ‘small tail’, referring to an artist’s brush; our ‘penicillin’ was so called because the mould looked like small tufts of hairs, or paintbrushes.



The paintbrush effect

### Glands and hormones

A gland (Latin *glans*, ‘acorn’) comes in two varieties: endocrine (Greek ἔνδον + κρίν- ‘internally distinguishing’) and exocrine (ἔξω + κρίν- ‘externally distinguishing’), the effects of the latter being observable e.g. sweat. A hormone is a chemical ‘messenger’, issuing from endocrine glands regulating various body systems. It was so named by its discoverers in 1905 from the ancient Greek *hormê* (ὁρμή), meaning ‘a setting in motion, arousal, excitement’. They imagined the endocrine glands sending the hormones e.g. adrenalin, testosterone etc. charging headlong about their work, like Homeric heroes.



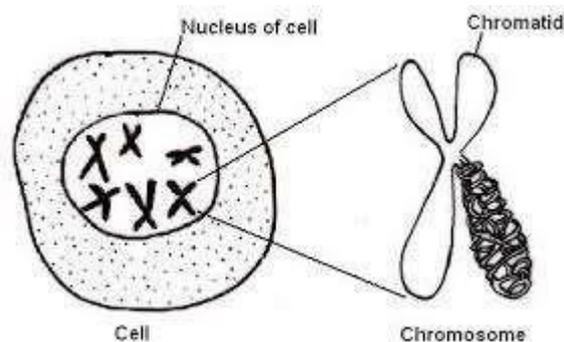
Adrenal gland (ad renes ‘near the kidneys’)

## Nucleus and chromosomes

Under a microscope, chromosomes looked like a coloured body. So they should: Greek *khrôma* (χρῶμα, 'colour') + *sôma* (σῶμα, 'body').

Chromosomes are held within a nucleus (from Latin *nux*, 'nut'). Latin *nucleus* meant 'inside of a nut, pip, central part of anything', and 'nucleus' means for us, in general, the central heart, crux or nub of something. In physics, it refers to the central core of an atom, charged with neutrons and protons. It was originally used of 'the central point of an atom' by Farady in 1844, and in its modern sense by Rutherford in 1912. Nuclear physics is the study of how that central atomic core is made up and reacts. It has implications not just for weaponry but for medicine (e.g. magnetic resonance imaging) and archaeology (radio-carbon dating).

Latin also had the form *nucula*, 'small, young nut'. Consequently, *nucleus* also appeared as *nucleus*. This explains why ex-American president George Bush junior always said 'nuculer': he had classical blood in him. There may be another explanation.



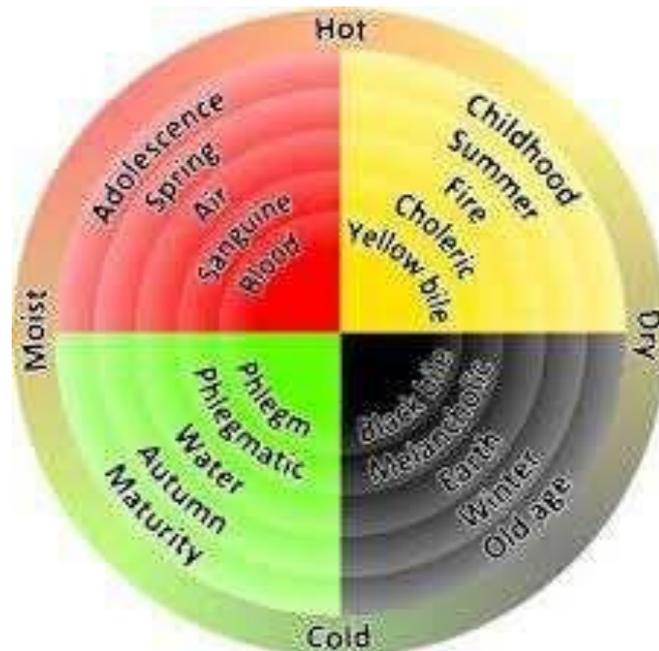
Nucleus and chromosomes

## No laughing matter: the four humours

If the word 'humour' had not changed radically over the past 2,500 years, a humorist would be someone with a deep interest in bodily fluids. 'Humour' derives from ancient Greek *khumos* (χυμός), via the Latin version of the word, (*h*)*umor* 'moisture, bodily fluid, sap' (→ 'humid', etc.).

Hippocrates was responsible. He drew on earlier theories of the nature of the cosmos, especially that the world was made up of four constituent elements (earth, air, fire and water), and that four 'powers' – hot, cold, wet and dry – were at work everywhere. We may guess that he observed that plants and the body survived on liquids, sap and blood. At the same time, other liquids regularly appeared on certain occasions: phlegm during colds, bile (black and yellow) during sickness, sweat during heat, and so on. Further, the body on occasions seemed willing to get rid of blood, its main life-force, during nose-bleeds and menstruation, for example. That surely justified blood-letting.

The conclusion was that balance was the key to health: the balance of liquids within the body kept it healthy, while the 'monarchy' of a single one made it ill. So when you fell ill, the doctor attempted to find out in which 'humours' you were deficient or excessive and rebalance them. Your age, the time of year, diet and so on would all play into the analysis. This theory reigned till the 18th C.



The four humours and matching associations

### Symptom

Greeks knew all about the 'chance occurrence', and they called it a *sumptōma* (σύμπτωμα). At one end of the scale, it could be quite inexplicable, a one-off mischance or mishap; at the other end, it was something that might be hard to explain but could be associated with certain conditions—and so a 'symptom' of an illness, or a property or attribute of a comprehensible phenomenon of some sort or other.

### Character-forming patterns

As well as dealing with physical conditions, the four-humour theory was also pressed into service to help with psychological ones. The Greek *kharaktêr* (χαρακτήρ) meant an engraver or engraving tool, especially a die-stamp, used for impressing designs on coins; and from there it came to mean the distinctive mark or impression that differentiated one person from another; and so 'character'. One's character could be revealed as much by one's balance of humours as one's health could.

Our own language draws on the analysis in the way that Greek does:

Greek *kholos* (χόλος) ‘[yellow] bile, anger’→late Latin *cholericus*→English ‘choleric, furious’.

Greek *melas* (μέλας) ‘black’→combined with *kholos* ‘melancholy, gloomy’.

Greek *haima* (αἷμα) ‘blood’, Latin *sanguis*→English ‘sanguine, confident’.

Greek *phlegma* (φλέγμα) ‘heat, phlegm’→late Latin *phlegma*→English ‘phlegmatic, cool’.



Four characteristics

## Temperament

Latin *temper* meant ‘I mix’ and one’s *temperamentum* was one’s personal ‘mixture’ of these humours. You were ‘good-humoured’ if the balance was right; if you acted absurdly, it indicated the balance of humours was wrong, and you became ‘humorous’.

‘Temperament’ and ‘temper’ originally meant the same thing; ‘distemper’, implying the mixture had become unbalanced (*dis-* ‘apart, separate’), meant you were angry. ‘Complexion’ derives from *cum* (‘together’) and *plecto* (‘I weave’)—one’s temperament, it was believed, was shown by the ‘weaving together’ of colours in the face.

## Going with the flow

### *Haemorrhoids*

Greek *haimorrois* (αἱμορροΐς) meant a vein likely to discharge blood. The roots of this word are very common: *haima* (αἷμα) ‘blood’ (Latinised to *haema-*) + *rhoê* (ῥοή) ‘flow’. The Hippocratics, who committed a small book to the subject, described how to deal with them:

Have the person lie on his back and place a pillow under the lower part of it. Force the anus out as far as you can with the fingers, heat up the irons till they glow and burn the haemorrhoids until you dry them off completely. See that you leave nothing uncauterised ... your assistants must hold the man down by his head and arms while he is being cauterised so that he stays still, but otherwise let him scream during the process, since that makes the anus stick out more.

I'll bet it does.



Look away now

### *Gonorrhoea*

Ancient doctors got this badly wrong. What we know as an infection involving inflammation and discharge from the urethra and vagina, ancients thought of as the flow (*rhoê*, see above) of *gonos* (γόνος) 'seed'.

Incidentally, 'ejaculate' is based on Latin *iaculum*, 'javelin'; *eiaculor* (*eiaculat-*) meant 'I shoot out'.

### *Diarrhoea*

*Diarrhoea* (Late Latin) means 'flowing through' (Greek διάρροια). Classical Romans experiencing a dire rear called it *deiectio*—and who would not feel dejected (literally 'cast down') at that? But they also took over Greek *dysenteria* (δυσεντερία), our 'dysentery' (→ 'entrails'), meaning 'lousy (*dus-*) insides'.

### *Diabetes*

Sugar cane was well-known in India long before it came to Europe. The Crusaders came across it ('sweet salt') in the twelfth century, and it was known in Europe but was difficult to harvest and process. It took off dramatically in the friendlier climate of the Americas when Columbus, stopping off for supplies in the Canaries, was given some cuttings and planted them in Hispaniola (part of the Greater Antilles). No sugar, then, in the classical world.

And no diabetes? Not quite. There was a sweetener: honey (Latin *mel*, *mell*-). When that became relatively common, diabetes was recognised as a disease. The doctor Aretaeus (second century AD) seems to have been the first to name it as *diabêtês* (διαβήτης). The Greek meant, literally, 'passing through'; the Latin *diabetes* meant 'siphon' (The agriculturalist Columella described trees drawing up water 'passing through the pith of the stem as if through a *siphonem*'.) Aretaeus, arguing that with diabetes the body became like a siphon, helping liquid to pass through it, described the dreadful consequences of type 1 diabetes (type 2 is quite different) as follows:

The patient never stops making water, but the flow never ceases, as if from an aqueduct... death is rapid and his life disgusting and painful... it is a thirst like fire... it is impossible to stop him from drinking and urinating.

### *Catarrh*

Here the *rhoê* is one that comes down (*kata* [κατά]) from the head: a cold.

Celsus described it rather well:

The nostrils close up, the voice becomes hoarse, accompanied by a dry cough. The saliva is salty, the ears ring, the head throbs, the urine is turbid ... These symptoms do not usually last long, but if neglected may last a long while.

### *Rheumatism*

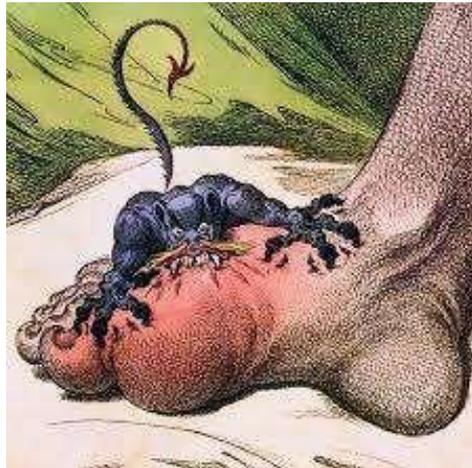
Here is another disease that goes with the 'flow': *rheuma* (ῥεῦμα). It meant 'current, river' and medically a 'flux, flow, discharge from the body'; whence *rheumatismos* (ῥευματισμός) and *rheumatikos* (ῥευματικός), both duly Latinised into *rheumatismus* and *rheumaticus*.

But this raises the question—what has *our* 'rheumatism' to do with morbid discharges from the body? In the seventeenth century, any joint pain was ascribed to the flow of bodily 'humours' into the joints, and 'rheumatism' was the term chosen to describe it, even though it was not what the ancients meant by it. It covered everything from what we call rheumatism to gout.

## Gout

The soldier-historian Xenophon talked of hunting deer with foot-traps, the word for which was *podagra* (ποδάγρα). Very painful too. This was the word which the Greeks used for something equally painful, gout, and it was taken over in that form by the Romans.

We probably call it 'gout' after the Latin *gutta*, 'drop' (13th C), because it was believed it was caused by blood 'corrupted by bile and phlegm' dripping into the joint. It was known to be a rich man's disease. Celsus said 'Some people have obtained lifelong security by refraining from wine, mead and sex.'



Milton, Tennyson, Voltaire, Conrad, Darwin...all the best people had it

## Delirium

Proto-Indo-European had a root *\*leis-*, meaning 'track' or 'furrow'. It became *lira* in Latin, meaning a ridge between the two furrows thrown up by a plough. The purpose of this, said Columella, was to provide 'a dry bed for grain'. The grammarian Velius Longus made the linguistic point: that bulls swerving off the straight line of their ploughing 'are said to *de-lirare*', i.e. to 'de-ridge', whence Latin *delirus*, and our 'delirious', 'demented'.

Incidentally, via its Germanic links, *\*leis-* eventually issues into English as 'learn'. The image is one of finding, and keeping to, a track.



This is an extract selected for you as part of Classics for All's 'Bellaria' series to cheer us up during the COVID-19 pandemic. The full series of weekly instalments may be found on our website [classicsforall.org.uk/bellaria/](https://classicsforall.org.uk/bellaria/)