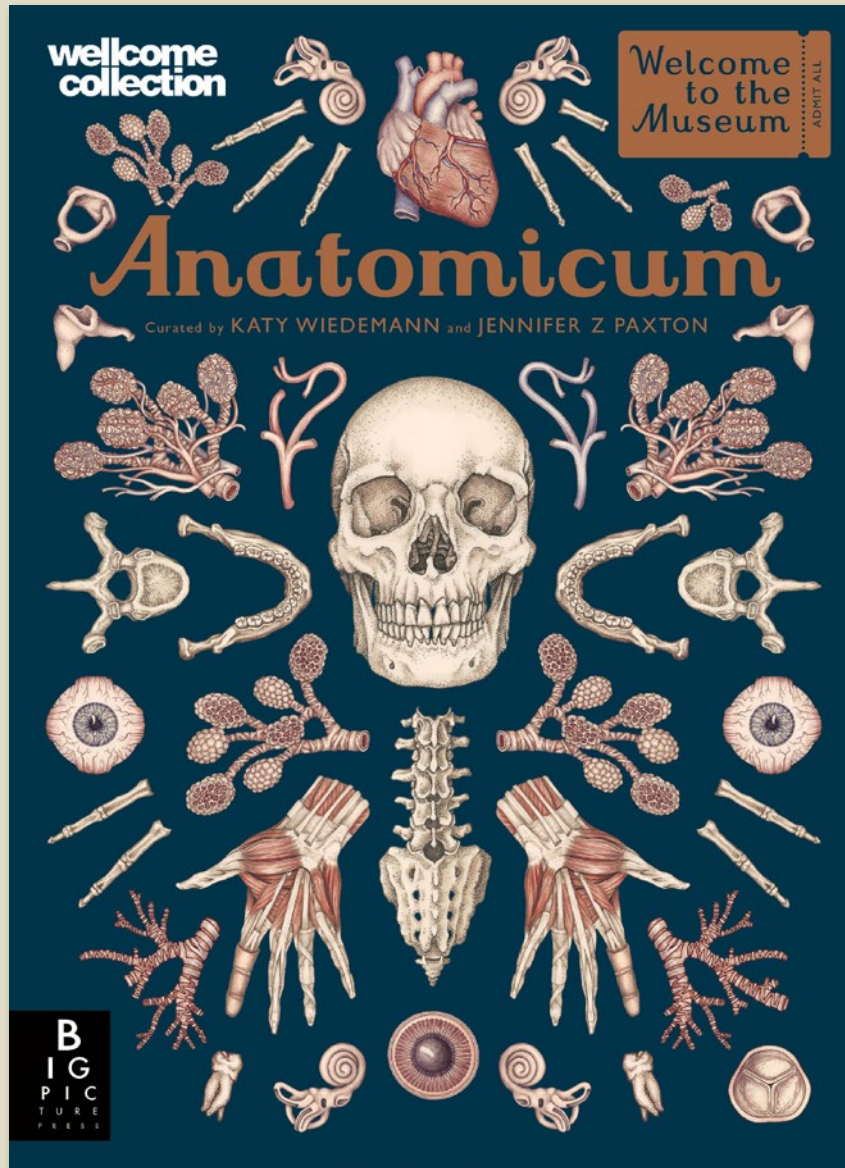


# Anatomicum




**This beautiful book is a feast of anatomical knowledge.**

- Contents: The Musculoskeletal System; The Cardiovascular & Respiratory Systems; The Digestive & Urinary Systems; The Nervous System & Special Senses; The Immune & Lymphatic Systems; The Endocrine & Reproductive Systems
- The Welcome to the Museum series has sold over 1 million copies worldwide
- Immaculately detailed illustrations by anatomical artist Katy Wiedemann
- Written by Dr Jennifer Z Paxton, Lecturer of Anatomy at the University of Edinburgh
- The UK edition has the endorsement and features the logo of the Wellcome Collection, London.
- Cover finish: spot UV and 30% silver foil

# Anatomicum

**The Muscular System**



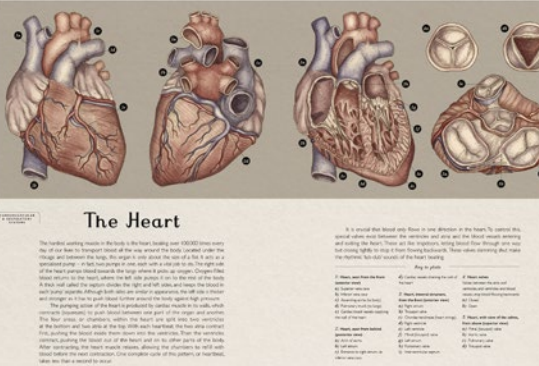
From the earliest first steps of infancy, being up on the world in the quest of an Orpheus odyssey on the path of a roller coaster the muscular system is responsible for everything from a simple head movement...

As well as thinking in motion, the muscular system has other key roles. From jumping over the hurdle (cardiac muscle) to thinking through the rigours of a long march (skeletal muscle) to communicating a long-distance message (smooth muscle) the system has a lot to offer in terms of its versatility. It is, in fact, muscle that has the greatest potential for the human body.

**Key to plates**

1. External nose	11. Uvula	21. Uvula
2. External nose (front)	12. Uvula	22. Uvula
3. External nose (side)	13. Uvula	23. Uvula
4. External nose (back)	14. Uvula	24. Uvula
5. External nose (top)	15. Uvula	25. Uvula
6. External nose (bottom)	16. Uvula	26. Uvula
7. External nose (left)	17. Uvula	27. Uvula
8. External nose (right)	18. Uvula	28. Uvula
9. External nose (medial)	19. Uvula	29. Uvula
10. External nose (lateral)	20. Uvula	30. Uvula

**The Heart**

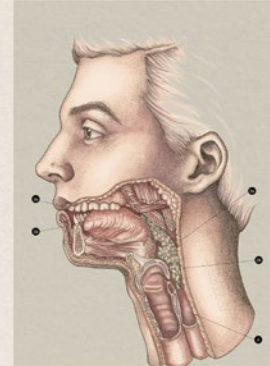


The human heart is a muscular organ that pumps blood throughout the body. It is located in the chest cavity, between the lungs, and is about the size of a clenched fist. The heart is divided into four chambers: the right and left atria and the right and left ventricles. The right side of the heart pumps deoxygenated blood to the lungs, and the left side pumps oxygenated blood to the rest of the body.

**Key to plates**

1. Right ventricle	11. Aortic valve	21. Aortic valve
2. Right ventricle (front)	12. Aortic valve	22. Aortic valve
3. Right ventricle (side)	13. Aortic valve	23. Aortic valve
4. Right ventricle (back)	14. Aortic valve	24. Aortic valve
5. Right ventricle (top)	15. Aortic valve	25. Aortic valve
6. Right ventricle (bottom)	16. Aortic valve	26. Aortic valve
7. Right ventricle (left)	17. Aortic valve	27. Aortic valve
8. Right ventricle (right)	18. Aortic valve	28. Aortic valve
9. Right ventricle (medial)	19. Aortic valve	29. Aortic valve
10. Right ventricle (lateral)	20. Aortic valve	30. Aortic valve

**The Mouth & Throat**




The mouth and throat are the gateway to the digestive system. The tongue is a muscular organ that helps in the process of eating and speaking. It is attached to the floor of the mouth and can move in many directions. The throat is the passage through which food and air travel. It is divided into the pharynx, larynx, and trachea.

**Key to plates**

1. Uvula	11. Uvula	21. Uvula
2. Uvula	12. Uvula	22. Uvula
3. Uvula	13. Uvula	23. Uvula
4. Uvula	14. Uvula	24. Uvula
5. Uvula	15. Uvula	25. Uvula
6. Uvula	16. Uvula	26. Uvula
7. Uvula	17. Uvula	27. Uvula
8. Uvula	18. Uvula	28. Uvula
9. Uvula	19. Uvula	29. Uvula
10. Uvula	20. Uvula	30. Uvula

**The Nose & Tongue**



Our senses of smell and taste can detect and recognise a staggering number of substances. For modern humans, these senses are most likely to whet our appetites or to bring back distant memories, but they can also alert us to a potential danger for example toxic chemicals or rotten food. Even so, they are not usually considered essential. Yet many years ago, our senses were far more important for our survival. The repulsion created by disgusting smells or tastes helped to keep the body safe from life-threatening infections that could be found in faeces (poo), dirty water or bacteria-ridden food, which would once have been daily encounters.

It is thought that the average human can detect several billion different odours. The sense of smell is most sensitive at birth to help newborns recognise their mother. Smell works by detecting odour molecules which float in the air around us. When we breathe, they enter the nostrils and pass into the nasal cavity – a large space behind the external nose. The roof of the nasal cavity contains millions of receptor cells that detect odours and transfer the 'smell' into an electrical impulse. This signal travels to the brain via a connection called the olfactory nerve.

Although our sense of smell is said to be 10,000 times more powerful than our sense of taste, the two are closely linked, and food tastes different if our ability to smell is impaired. This is something you might have encountered before, especially if you've eaten while you have a heavy cold or have pinched your nose while chewing food.

Thousands of taste sensors are found on the top surface of the tongue, on little bumps called papillae. More commonly known as taste buds, these special sensors detect chemicals in the food we eat and send messages to the brain. For many years, there were known to be four basic flavours of food that we can detect: sweet, sour, salty and bitter. More recently, a fifth taste category has been proposed, called umami, meaning 'savoury' in the Japanese language.

**Key to plates**

1. Nose	11. Uvula	21. Uvula
2. External nose (front)	12. Uvula	22. Uvula
3. External nose (side)	13. Uvula	23. Uvula
4. External nose (back)	14. Uvula	24. Uvula
5. External nose (top)	15. Uvula	25. Uvula
6. External nose (bottom)	16. Uvula	26. Uvula
7. External nose (left)	17. Uvula	27. Uvula
8. External nose (right)	18. Uvula	28. Uvula
9. External nose (medial)	19. Uvula	29. Uvula
10. External nose (lateral)	20. Uvula	30. Uvula

**The Nose & Tongue**



Many thousands of taste buds (or papillae) cover the top surface and are responsible for detecting one of the five different categories of taste: sweet, salty, sour, bitter and umami.

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