

Feature	Explanation	Considerations
Standard Features & Options		
Synchronous Mechanism	Relationship between seatpan and backrest is linked so that the angles adjust in a fixed ratio. Typically, the backrest tilts 1.5 - 2.5 degrees for each degree of seatpan tilt.	Simple to operate and widely used in multiple (project) chair installations because you can change the back and seat angles quickly and simultaneously, allowing posture changes for different activities such as keyboard work or reading. Suits many people but will not suit all. Chair geometry varies between manufacturers and from model to model so, if you like this feature on one chair, do not necessarily assume you will like it on another.
Asynchronous Mechanism (also known as Multi-tilt)	Seatpan and backrest angles can be adjusted independently, usually with two separate levers	Provides maximum adjustability and scope for comfort. Since each element of the chair can be configured independently, you will have the maximum opportunity to optimise your posture. Can be awkward to get right but, if you are buying just for you, this should probably be your preferred option
Free Float (Rocking) Feature	Seatpan and backrest move together in a “rocking chair” motion. To be properly effective, the chair should offer resistance to the rocking movement with adjustable tension sensitive enough to suit different user weights	Suitable for roles such as reading or thinking. A good rocking action encourages movement so that you can change posture and position frequently. This in turn helps blood circulation. If you are considering this feature, the ease and sensitivity of tension adjustment is often the best indicator of the quality of the chair
Seat Height Adjustment	Allows you to vary the	Allows you to position

	height of the seatpan from the floor	yourself at the correct height for your workstation and activity. Different work tasks (e.g. reading, writing or keyboard work) require different sitting heights and postures and this feature makes that easy to achieve. In Europe, it is a legal requirement for a work chair
Seat Slide	Slide the seatpan backwards or forwards in relation to the backrest to adjust the effective seatpan depth for the user	Regardless of your height, this enables you to get the appropriate level of under-thigh support without restricting circulation. Typically, if you sit right back in the chair, there should be 30-40mm between the front of the seatpan and the back of your knees but this will vary according to the shape of the seatpan front and your personal preference. A sliding seat should make this easy to achieve for the different thigh lengths of multiple users or, as a single user, allow you to optimise your own seat comfort and support
Independent Seat Tilt Adjustment	Seatpan can be tilted (usually forwards) from the horizontal position	Tilting the seatpan forwards enables you to position your pelvis above your knees. This opens up the pelvic angle which will improve the "S" shape of your spine when sitting, reducing the load on your spine and improving blood flow
Back Height Adjustment	The height of the backrest can be adjusted in relation to the seatpan	Assuming the backrest is shaped to fit the "S" shape of your spine, the vertical position of its lumbar curve

		needs to be positioned to fit the small of your back. By this method, the adjustment enables you to achieve optimum back posture and support
Independent Back Angle Adjustment	The angle between the backrest and the seatpan can be adjusted without changing anything else	We do not sit with our backs at 90 degrees to our thighs. About 100-110 degrees is recommended so the ability to adjust this angle (especially in conjunction with an independent seat angle) allows you to optimise the seatpan/backrest relationship
Adjustable Lumbar Support	Typically a pump up/down or mechanical device in the backrest which changes the contour of the backrest to fit the lumbar (small of the back) region	Any reasonable chair should have a backrest that is shaped to fit the lumbar curve. The reason for this is that it encourages an "S" shaped spine which reduces pressure on discs between the vertebrae. If an adjustable lumbar support is fitted, it enables you to optimise the shape of the chair backrest to fit the curvature of the spine around your lower back
Pelvic Support	Backrest shaped to hold the pelvis in place vertically. Can usually be felt in the backrest as a cradle or wedge shape over the top of the buttocks	Holding the pelvis vertical (as if standing up) encourages a good spinal posture and reduces slouching. Pelvic support is often very helpful for sciatica sufferers. It is usually provided as an alternative to lumbar support rather than in addition because the objectives of both methods are the same (a good spinal posture) but the ways of achieving it are different

Adjustable Thoracic Support	Not as widely seen as the lumbar support, this adjustment feature in the backrest is in the area of the mid-back or thoracic spine (roughly speaking, below the armpits)	Normally offered in addition to an adjustable lumbar support, this feature gives an even greater range of backrest shape adjustment to fit a good spinal "S" shape
Height Adjustable Armrests	Adjust the height of the armrests above the seatpan	Armrests need to provide support when not using the keyboard to minimise tension build-up in the shoulders. Instant adjustability makes them easy to move down out of the way when not needed (or to clear the desktop) and up to a supporting height when required
Width Adjustable Armrests	Adjust the width of the left-to-right horizontal gap between the armrests	You will not want to have to reach out too far for arm support or be wedged in by the armrests. This feature enables you to optimise the lateral proximity of the armrests to you
Depth Adjustable Armrests	Adjust the distance of the armrests back from the front of the seatpan	Armrests that come too far forward prevent you getting close enough to the desk. Particularly for slimmer users, it is important to be able to move armrests towards the backrest of the chair and out of the way
Independently Adjustable Headrest	Head support which is typically attached to the top of the backrest and can be adjusted up and down, forward and back	Best suited to users in control rooms who need to look at high monitors or to personnel who need a lot of thinking time. Provides you with head support when leaning back
Independently Adjustable Neckrest	Neck support which is typically attached to the top of the backrest and can be adjusted up and down, forward and back	Fits into the nape of the neck and is most widely used by individuals with neck injuries or in control room or strategic thinking roles. Complements the

		back support without restricting movement
Vertically split backrest	A small number of manufacturers offer this option which consists of two vertical backrest pads, each slightly less than half the width of a normal backrest and mounted side-by-side so that they can move independently	The spine is supported laterally without direct pressure on the immediate spinal area. This can be especially useful if you have had spinal surgery and remain tender in the area of the operation. It is also effective for spinal asymmetry (scoliosis)
Mesh backrest	Instead of the traditional upholstered backrest, a frame supporting a stretched mesh fabric is used. Very fashionable and often very elegant	This format offers you improved ventilation over a traditional backrest and, therefore, better temperature control. However, only a handful of the best manufacturers have mesh designs sophisticated enough to offer good back support
Memory foam	Specialist foam for use under the upholstery of a traditional chair design. Foam moulds to fit the user exactly	Reduces pressure points and aids circulation. This option is not widely publicised in office seating markets but is heavily marketed in bed design and manufacture. This is the seating equivalent of a "mattress topper" and can be specified just for extra comfort or for applications where the user has circulation or sensitivity issues
Waterfall seat front	Cheap chairs use cut foam and make rounded shapes through the pressure of the upholstery. Better quality chairs have moulded foam and a rounded front on the seatpan is called a waterfall	A good quality moulded foam seatpan with a waterfall front offers you greater support and comfort with unrestricted blood circulation behind the knees
Foot ring or foot plate	For chairs with increased height range (typically for	Unnecessary with a standard office chair but

	bench or counter use), a foot ring or attached foot support can be added to many models	often required in retail or laboratory applications, some form of attached foot support ensures you do not have your legs swinging. A high footrest is an alternative approach
Specialist Adaptations		
Coccyx cutout	Small hollowed-out gap in the centre part of the seatpan (usually combined with extra thick foam)	Ensuring there is a gap in the seat under the user's coccyx area removes contact pressure for those with pre-existing injuries and, instead, provides support around the coccyx area. Often combined with memory foam in the seatpan
Drop-down armrests	Typically, the armrests pivot backwards behind the seat to give clear access to the chair seatpan. Commonly used with a method of stabilising and locking the chair motion	For wheelchair users, this features makes it potentially possible to slide sideways from a wheelchair onto the office chair
Movement lock	Stop the chair moving or rotating	There several different ways to do this but the most common objective is to prevent the chair moving completely so that a wheelchair user can move into or out of it safely
Split seatpan	The front of the seatpan is split in the centre and the left and right front parts can be tilted forwards independently of each other	For users with restricted movement of one knee or hip, this enables them to accommodate the straighter leg but maintain a reasonable sitting posture.
Support armrests	One or a pair of armrests offering constant support even when moving about in the chair. 2D (horizontal movement) and 3D (any direction) variants available	Where arm support is needed at all times, these armrests move with the user and the 3D version can be tension-adjusted to match the pressure being applied
Inflatable cells	For conditions such as	Similar in concept to the

	scoliosis or where there is muscle wastage, a number of specialist adaptations can be applied	adjustable lumbar or thoracic supports, pads of different shapes and sizes can be installed in the backrest or seatpan to modify and improve the user's posture
Motorised vibration pads	Running on rechargeable batteries, massage units can be fitted to the backrest or seatpan on a bespoke basis	Where circulation is an issue, massage/vibration units can aid blood flow
Specialist fabrics for allergies	An enormous variety of standard or specially treated fabrics and vinyls are available	Once allergies are identified, it is easy to specify chair coverings which will not conflict
Specialist Applications		
ESD	Electro-static discharge chairs are used in areas such as electronics manufacturing plants, where static electricity must be eliminated	The chair, including the castors and upholstery, is made from components which conduct electricity so that the whole assembly is constantly earthed and there is therefore no risk of static electricity accumulation
Clean-room	In laboratory applications, it is most important that the chair does not compromise the environment	Chairs can be made with reduced moving parts or sealed components to comply with the operational needs of the workplace
It is important to remember that your chair should be adjusted throughout the day, both to accommodate changes in activity and to adapt to our body changes (we all shrink during the day and stretch out again when we sleep)		