



Creating a Modern Ergonomic Kitchen

Storage Design Considerations

NOVER

Ergonomic kitchen design seeks to create an environment that complements the human body in a practical and healthy way.

INTRODUCTION

When designing a kitchen, there are several factors to consider, but one of the most important is ergonomics. Ergonomic principles aid in ensuring that tasks such as cooking are carried out in a way that maximises comfort and safety in the kitchen. This entails customising workspaces, appliances, and kitchen layout to the user's needs and abilities in order to ensure optimal performance and minimise strain.

Effective storage plays a vital role in kitchen ergonomics. Thoughtfully designed storage systems keep the kitchen organised and ensure that essential items are easily accessible, reducing the need for excessive bending, stretching, or lifting. By positioning frequently used items within comfortable reach, well-planned storage enhances the overall flow of the kitchen. This not only promotes a more comfortable cooking environment but also helps maintain a practical, user-friendly space that supports everyday activities.

This whitepaper examines the role of ergonomics in kitchen design and discusses the design considerations when incorporating ergonomic storage solutions.





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IMPORTANCE OF ERGONOMICS IN KITCHEN DESIGN

Kitchen ergonomics focuses on reducing the physical strain and unnecessary movements that users often face while working. Since working in a kitchen involves a variety of full-body movements—such as bending, reaching, and hand and wrist actions—it is essential to design the space in a way that supports these activities.

Given that the kitchen is one of the most frequently used areas in the home, creating an ergonomic space is key. It is well established that an ergonomic space reduces the risk of musculoskeletal problems resulting from awkward postures and repetitive motions, such as back pain and repetitive strain injuries.¹

Accessibility and kitchen ergonomics go hand in hand. In addition to improving comfort and productivity, an ergonomically designed kitchen promotes accessibility by making sure that storage spaces, benchtops, and appliances are easily accessible and usable by individuals with varying abilities.

Many older Australians (68% of respondents in a recent CareSide survey) report a desire to age in place.² As people age, mobility and physical strength may decline, making it essential to create a kitchen environment that minimises strain. By integrating ergonomic principles, a kitchen can be adapted to allow individuals to live independently and safely in their homes for longer.





FEATURES OF AN ERGONOMIC KITCHEN

Ergonomic kitchen design seeks to create an environment that complements the human body in a practical and healthy way. Below, we highlight some design elements you will typically find in an ergonomic kitchen.

- **Kitchen work triangle:** Setting up the refrigerator, cooktop, and sink in a triangle with a comfortable amount of space between each workspace helps to reduce strain and promotes efficient movement.
- **Working surface height:** Providing varying benchtop, cooktop and storage area heights to accommodate different tasks and users reduces strain on the back and arms.
- **Accessible storage:** Providing storage that is easy to use at a comfortable height and with enough capacity to fit all required kitchen items and appliances.
- **Proper lighting:** Installing general ambient lighting for overall visibility and task lighting to light work areas and lessen eye strain.
- **Ergonomic fixtures:** Improving usability by utilising fixtures like pull-out sprayers, lever handles, and touchless faucets.
- **Ergonomic flooring:** Selecting flooring materials that, particularly in wet or spilly environments, offer good traction and lower the chance of slips and falls. Softer flooring materials may also be considered to reduce impact on joints and muscles.
- **Clutter-free surfaces:** Creating well-organised work areas with plenty of benchtop space and built-in storage options to improve mobility and functionality.

HOW ERGONOMICS APPLY TO STORAGE AREAS

By organising items to ensure everything is within easy reach, smart storage solutions streamline the workflow for tasks like food preparation, cooking, and cleaning. This reduces unnecessary movements and helps make the kitchen a more efficient and comfortable space to work in.

Given the wide range of items found in a kitchen— from utensils and crockery to appliances and cleaning supplies— a well-planned system ensures that frequently used items are readily accessible, while less commonly used items are stored in more appropriate locations.

What to consider

Reachability

Frequently used items should be stored in areas at waist or eye level to avoid excessive bending or reaching and utilising pull-down or pull-out mechanisms. The ideal ergonomic reaching height is somewhere slightly above eye level, or where the user rests their elbows when extended. Rarely used items can be stored in upper cabinets accessible with a step stool if needed and lower cabinets within comfortable reach.

Incorporating pull-out drawers or shelves in base cabinets makes accessing items much easier, especially those stored at the back. This feature is particularly helpful for individuals with limited mobility, as it eliminates the need to crouch or search for items hidden deep on low shelves.

Logical and organised layout

Arrange storage areas according to how often items are used and where they are needed for specific tasks. For instance, keeping pots and pans close to the stove and utensils near the preparation area helps improve the workflow.

Using dividers and adjustable shelves helps keep everything organised and easy to find. This setup minimises the time spent searching for items,

Ease of access

Install pull-down racks or lift-up cabinets to make high storage areas more accessible without the need for stretching or climbing a ladder. This feature allows for easier access to upper shelves, enhancing convenience and reducing the risk of strain.

To maximise storage in corner spaces, consider rotating shelves or pull-out corner units, which make it simpler to reach items stored at the back. Additionally, using wall cabinets with lift systems can prevent cabinet doors from obstructing your movement.

Comfort and safety

Incorporating soft-close hinges and drawer slides helps prevent slamming, reducing noise and protecting fingers from injury. These mechanisms not only create a quieter kitchen environment but also contribute to extending the lifespan of cabinets and drawers by minimising wear and tear.

Adjustability/customisation

An ergonomic kitchen prioritises adjustability to enhance comfort and usability. For example, vertical storage solutions allow for items to be stored at various heights, making it easy to adjust for different users' needs. Corner storage, with pull-out or rotating units, offers adaptable access to hard-to-reach areas without awkward movements. Modular storage systems further enhance adjustability by offering customisable shelving and compartments, allowing the kitchen to evolve with the user's changing needs over time.

Ergonomic fixtures

Easy-open handles and motion support systems play a significant role in reducing physical strain and enhancing user comfort. Ergonomically designed handles, which are easy to grip and operate, help minimise the effort needed to open and close cabinets or drawers, particularly benefiting those with reduced hand strength or dexterity.

Motion support systems take this a step further by enabling cabinets and drawers to open with a light touch of the hand, knee, or foot, eliminating the need for handles altogether. These systems allow for hands-free operation, making it easier to access storage when carrying items or during busy kitchen tasks.

Visual clarity is another important ergonomic consideration, as it reduces the time and effort spent searching for items. Clear labeling, transparent doors, or well-lit interiors ensure that users can easily see and access stored items without unnecessary bending or searching.



ERGONOMIC SOLUTIONS FOR THE MODERN KITCHEN

In the 1980s and 1990s, Nover proudly distributed the Salice range of hinges, a brand known for its exceptional quality and reliable performance. The partnership between Nover and Salice, which helped drive the brand's growth, has now been re-established, 30 years later.

Over the decades, Salice has expanded beyond high-quality hinges to offer a wider range of products, including lift fittings, drawer systems, wardrobe accessories, and sliding and folding systems. Now, for the first time in over 30 years, Salice products are once again available through Nover's network, providing local stock and support to businesses across the East Coast of Australia.

Available through Nover, Salice's Silentia+ hinges are ideal for creating an ergonomic kitchen environment by ensuring doors close smoothly and consistently under any conditions. The advanced soft-close technology reduces noise and prevents slamming, enhancing both safety and convenience. This makes daily kitchen use more comfortable by minimising the effort required to open and close cabinets.

The EvoLift system offers ergonomic benefits through its adjustable design, which allows smooth and controlled movement for all flap door applications. Its compact dimensions maximise storage space while ensuring easy access to items, reducing the need for awkward reaching or bending. With options like soft-close and push-to-open mechanisms, EvoLift provides a seamless, user-friendly experience.

The Exedra pocket door system further supports ergonomic kitchen design by optimising space and improving accessibility. With its cam-assisted sliding action and linear damping system, Exedra enables smooth, controlled door movement, making it easier to hide or access appliances and storage areas. This system is versatile enough to be used across various kitchen applications, reducing installation time while ensuring a sleek, organised, and user-friendly environment.

Another range in Nover's extensive offering is Peka, a company that combines smart, innovative storage solutions with Swiss quality. Peka offers innovative storage solutions designed for maximum accessibility and convenience in the kitchen. Their corner and larder unit pull-outs make optimal use of kitchen space, keeping utensils and ingredients within easy reach. Peka's range includes the Pegasus Shelf Lift, which allows users to easily access the top, bottom, or back of units, and the Extendo pull-out shelf, providing a clear view and easy access to stored items. The Pleno Plus larder pull-out further enhances functionality by allowing access from three sides, making Peka the ideal choice for ergonomic kitchen storage solutions.

By organising items to ensure everything is within easy reach, smart storage solutions streamline the workflow for tasks like food preparation, cooking, and cleaning.



REFERENCES

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