

Best practice guide for FURNITURE AND TELEVISION TIP-OVER PREVENTION

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NATIONAL RETAIL ASSOCIATION, AUSTRALIA

Best practice guide for

FURNITURE AND TELEVISION TIP-OVER PREVENTION

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Introduction

Purpose

This best practice guide provides information to assist key stakeholders to understand and mitigate critical safety hazards associated with toppling furniture and televisions. Stakeholders include designers, suppliers of raw materials and components, manufacturers, importers, exporters to Australia, buyers, agents, distributors and regulators.

The **objective** is that all individuals and businesses involved in the manufacture and supply of products listed within the scope follow best practice, as set out in the following pages.

Products must be safe in the context of their environment. In the design and marketing of furniture, it is essential to consider the behaviours of children, whose need for exploration and challenge drives them to use products in new and different ways.

Children are less aware of 'cause and effect' and are therefore far less cautious than adults in relation to hazards. Young children may climb on furniture despite being told not to do so. Toppling furniture can cause young children serious injuries and death.

Designers (sometimes known as product developers), Suppliers and Consumers all have a role to play in managing safety. This guide outlines how everyone can work toward ensuring children are kept safe in their homes.

Acknowledgments

This guide is a result of the collective input from various retail organisations and their representatives, under the broader banner of National Retail Association's Technical Standards Committee.

Related organisations including the Australian Furniture Association, the Consumer Electronics Suppliers Association and the Australasian Furnishing Research and Development Institute have also provided contributions to this project. Their support in the development and implementation of this guide is most valuable.

All contributors' efforts are recognised and appreciated.

National Retail Technical Standards Committee

The National Retail Association's Technical Standards Committee (NRTSC) is a group of quality assurance and product compliance specialists who come together from many of Australia's retail businesses to address the challenges of product safety and compliance. NRTSC actively participates in regulatory, industry and standard reviews relating to the safety of retail merchandise.

The Committee is an important forum for the development of retail industry policy. It communicates regularly on behalf of the industry with government decision-makers and agencies, including Standards Australia, the Australian Competition and Consumer Commission, offices of Fair Trading and Consumer Affairs, the National Measurement Institute and others, conveying the issues and concerns of the retail sector.

Referenced standards and guides

Standards referenced during the compilation of these guidelines include:

ASTM F3096 *Standard Performance Specification for Tipover Restraint(s) Used with Clothing Storage Unit(s)*

ASTM F2388 *Standard Consumer Safety Specification for Baby Changing Tables for Domestic Use*

Australian/New Zealand Standard AS/NZS 4220 *Bunk beds and other elevated beds*

Australian/New Zealand Standard AS/NZS 4935 *Domestic furniture – Freestanding chests of drawers, wardrobes and bookshelves/bookcases – Determination of stability*

Australian/New Zealand Standard AS/NZS 60065 *Audio, video and similar electronic apparatus – Safety requirements* (IEC 60065, Ed.7.2 (2011) MOD)

Australian/New Zealand Standard AS/NZS 60335.2.6 *Household and similar electrical appliances - Safety - Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances* (IEC 60335-2-6 Ed 6, MOD)

EN12221 *Child use and care articles. Changing units for domestic use. Safety requirements*

ISO Guide 37 – *Instructions for use of products by consumers*

Review of this document

Comments on this document can be submitted to the *National Retail Association Technical Standards Committee*. This guide will be reviewed from time to time in response to user feedback, or at least after the first twelve months of operation. Submissions and suggestions should state the nature of any concern and recommended improvement. Please email: info@nra.net.au.

Product safety – Legal framework

The following provides readers with a short overview of the regulatory environment that governs the supply of products and services in the Australian marketplace. The framework is more complex than can be captured fully within this overview. Readers are encouraged to seek additional information as determined by their specific requirements and not to rely exclusively on the information provided below.

To assist, a number of links to relevant websites are provided at the end of this section.

Safety framework overview

The Australian Consumer Law (ACL) is a schedule in the Competition & Consumer Act 2010. The ACL includes laws that relate to the safety of consumer products and product-related services¹. Product safety relates to how the product performs in normal use and also extends to the conditions of any reasonably foreseeable use (which may include foreseeable misuse).

The ACL includes a combination of specific safety requirements and a general expectation that all products offered for sale must be inherently and intrinsically safe.

¹ Specific product groups (e.g. food, therapeutic goods) are covered by regulations from other government bodies. Please visit the

The ACCC and the state and territory agencies have a number of remedies and enforcement options available to deal with product safety related offences. These include ² heavy fines (for corporations and individuals), the power to enforce product recalls and accept court enforceable undertakings.

Product safety provisions

Australian product safety legislation covers a range of provisions:

Mandatory standards - Products may be required to meet performance, quality, information, marking and/or labelling obligations. It is illegal for businesses to sell products that do not comply with mandatory safety or mandatory information standards.

Product bans - Products may be banned on a permanent basis, or on an interim basis where the regulator ³ requires an opportunity to investigate further. It is illegal to sell products that are covered by either a permanent or interim ban.

Product recalls - Where a product represents a significant safety risk for consumers or does not comply with a mandatory safety or information standard⁴ and where the product has already been offered and sold to the public, wholesalers and manufacturers may need to withdraw products from sale and conduct a public recall. Companies must advise the ACCC so the recall can be posted on the recalls website and monitored for effectiveness. While most recalls are supplier-initiated (i.e. 'voluntary'), the government can also order a 'compulsory' recall.

Mandatory reporting - Where a person has suffered death, illness or serious injury⁵ whilst using a product (or service), upon becoming aware of the incident the supplier⁶ must submit a report to the ACCC within 48 hours.

Product liability allows injured parties to claim damages from the manufacturer of a defective product. This applies to products that do not meet the level of safety people are entitled to expect.

Misleading and deceptive product claims are prohibited under the general consumer protection provisions. In product safety terms, this could relate to claims such as weight-bearing capacity or meeting certain standards.

Consumer guarantees exist for all products, including the right to safe products. These guarantees entitle consumers to remedies such as product repair or refund.

Product safety provisions and policy can change from time to time. Check and register with the website below to stay up to date on any developments.

² Not an exhaustive list of the options available to the ACCC.

³ State or territory based regulators also have the ability to impose interim bans (applicable only in their state or territory) whilst safety investigations proceed.

⁴ This is a risk-based assessment.

⁵ Typically, this is where the incident has required the injured party to receive medical and/or clinical attention.

⁶ All entities in the supply chain are suppliers as the term is defined in the ACL and includes (but is not limited to) a retailer, dealer, distributor, importer and manufacturer.

Further information

The above provides a high level overview of the safety framework in Australia. For further details regarding the consumer laws, product safety and product recalls, it is recommended that you visit the following websites:

- Australian Consumer Law website: www.consumer.gov.au
- Product Safety Australia website: www.productsafety.gov.au

The hazards and how you can help

Furniture tip-over hazards

Children like climbing on things, especially if there is something up high they want. Household furniture like bookshelves and entertainment units can be attractive to climb. So too, furniture like tallboys where pulled-out drawers act as stairs for climbing.

If tipped over, the weight of the unit and its contents become a lethal force.

Toppling televisions

Television sets – whether slimline or the older cathode ray models – also present a high risk of toppling if not secured and the impact of a TV set falling on a young child can also be lethal.

While slimline units are often wall-mounted, many TVs are placed on top of furniture, including in children's bedrooms.

Injuries and fatalities

The data illustrates the seriousness of the issue. At least 15 children under nine years old have died in Australia during 2000-2016 after domestic furniture or televisions fell on them. This is around one death per year.

As well as the fatalities, each year more than 100 children are brought to hospital emergency departments after furniture has fallen onto them. These include crush injuries to the head and internal organs, as well as broken bones.

Awareness

Research shows that many parents are aware of the risks, but may need further information about the nature of the hazard and how to address it.

The Australian Competition and Consumer Commission published research into consumer awareness of furniture hazards in 2015.

<http://www.productsafety.gov.au/content/index.phtml/itemId/1014173>

Key findings of this research are:

- The majority of parents are aware of the risks posed to young children by falling furniture and televisions
- Sideboards, TV stands and entertainment units are not thought of as furniture that can be anchored to a wall
- Chests of drawers are the most likely furniture piece to not have instructions or equipment provided on purchase
- Bookcases and bookshelves are most likely to have both instructions and equipment provided when purchased
- One-quarter of parents have experienced an incident of falling furniture – this was generally a near miss incident

- Parents generally want to know the types of furniture that are most often involved when children are injured and how to attach brackets or anchors. This would be best communicated through pamphlets with the furniture
- Most parents would be likely to purchase anchors or brackets in the future

Easy prevention

The injuries and fatalities can be prevented with just a little effort.

Some household furniture has a level of in-built stability and resists toppling even if climbed on. Items that have a low and/or heavy base may be more stable. Design is always the most effective way of achieving product safety. Products can be designed to maximise stability and so avoid or limit the chance of tip-overs.

For furniture that is prone to toppling, it is important that it can be secured to a wall. Anchor kits should be provided with this furniture. Televisions should also come with a means of anchoring the unit.

Ways of securing furniture and televisions are generally available for anyone wanting to do so. Anchoring products exist in the market and guidance on using these products can be found. However, a substantial proportion of furniture that may be prone to toppling does not currently come with an anchor device provided.

Where products are not already provided with anchor devices, retailers should take steps to ensure their suppliers do so.

Instructions and warnings should accompany products to explain the need and how to use anchoring.

If a product does not come with its own anchor, retailers can supply separate kits.

Benefits to all suppliers

All manufacturers, importers and retailers should have a policy that outlines a commitment and systems to address hazards associated with their product range. This includes furniture and television tip-over hazards.

All suppliers can take action to limit the hazards associated with toppling furniture and televisions. Benefits to suppliers, in the context of this known hazard, include fulfilment of corporate social responsibility and coverage against product liability claims.

Opportunity for retailers

Toppling furniture and TVs are not always a well-recognised hazard in the home. Retailers have the opportunity to alert and guide customers at the time of sale – not just parents, but grandparents and others with young children about. This can be done in a variety of ways.

This guide explains the ways that retailers and other suppliers can play a key role in improving purchasing choices, raising consumer awareness and providing the means to secure furniture.

Scope

This best practice guide applies to household furniture, especially those items that are prone to being climbed on by a child, and televisions that can topple.

This guide specifies best practice for freestanding televisions and furniture items, such as (but not limited to):

- Televisions with a mass of 7kg or more, and capable of being freestanding
- Bedroom storage over 500mm tall, including chests of drawers, tallboys, dressers, wardrobes and bedside tables
- Bookcases over 600mm tall
- Storage cubes and modular units over 600mm tall (combined height)
- Entertainment units over 500mm tall
- Buffets and hutches over 500mm tall
- Filing cabinets or similar over 500mm tall
- Laundry shelving over 600mm tall
- Garage, shed and garden shelving over 600mm tall

These height specifications are drawn from AS/NZS 4935 – *Domestic furniture – Freestanding chests of drawers, wardrobes and bookshelves/bookcases - Determination of stability*; and AS/NZS 60065 - *Audio, video and similar electronic apparatus - Safety requirements*.

Achieving best practice

The following three elements are considered the most critical for stakeholders to implement:

1. All manufacturers, importers and retailers of furniture and televisions should have a company policy that outlines systems to address tip-over hazards associated with their product range and a commitment to support the policy
2. Product manufacturers should:
 - i. affix or supply anchor devices, which are fit for purpose, with the products and
 - ii. provide consumer warnings and information:
 - in user/assembly instructions
 - on packaging; and
 - on-productin line with recommendations in Appendices 1 and 2
3. Retailers should:
 - i. specify their suppliers pre-install anchor devices
 - ii. as part of the sales transaction:
 - alert customers to tip-over hazards and prevention
 - provide consumer literature, as listed in Appendix 4

Stakeholders can further reduce the likelihood of young children being harmed by implementing the following practices:

Product design

Product designers, manufacturers and buyers should:

- review product design to identify product at risk
- maximise stability
- affix/supply anchor devices with the products

Risk assessment and quality management

All members of the supply chain should:

- Conduct range reviews to assess the design intent of furniture products
- Conduct initial reviews of items to assess whether they pose a tip-over hazard or are capable of tipping over in different circumstances, such as top-heavy loading. For example, if the item has drawers, does the item tend to tip over when one or all drawers are open?
- Arrange stability testing where appropriate
- Have an adequate quality management system which ensures products they supply are safe and compliant

- Audit/visit factories prior to purchasing to ensure that the correct quality procedures are in place
- Keep documented evidence of quality assurance measures in place
- Inspect goods (preferably before shipment on goods that are imported)

Accessory supply

Retailers may wish to stock hardware items:

- child-resistant drawer locks
- anchor kits for any furniture that does not come with these included

This may encourage customers to use these devices with their purchased products rather than make a separate trip to the hardware store.

Consumer information

Suppliers and retailers are encouraged to include on their website:

- user/assembly instructions
- separate consumer warnings and advice, and/or links to consumer education resources

Online suppliers

Suppliers of furniture and televisions direct to consumers online have a number of opportunities to adopt best practice. All of the above practices apply, plus online shopping allows effective messaging, such as linking anchor kit purchase to television or furniture unit transactions.

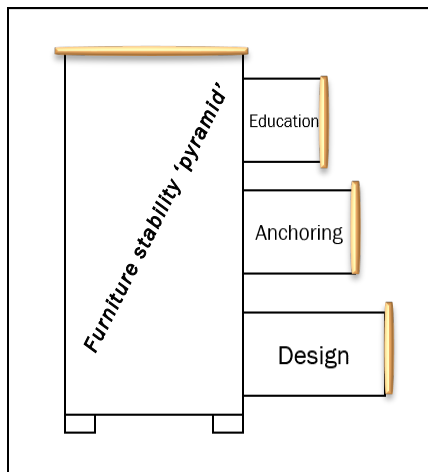
Other products

Baby change tables may be prone to toppling, including storage furniture with optional change tables. Guidance on achieving stability is available in the standards EN 12221 or ASTM F2388.

Guidance and testing for stability of **Bunk beds**, including any integrated features such as desks, cupboards and shelves, is contained in AS/NZS 4220.

Freestanding cooking ranges have also been associated with tipping. Standard AS/NZS 60335.2.6 is available to manage this hazard.

Preventive measures



There are three key concepts that are important for increasing the safety of furniture.

In order of effectiveness, they are:

1. Product design
2. Anchoring
3. Consumer education

It is best to implement a strategy involving all three.

1) Furniture design

Design is fundamental to any product's safety. While anchor kits and consumer education may assist in improving the safety of a furniture product, design is the most important element.

Where a product has been designed with an emphasis on stability, then anchor kits and education may provide additional peace of mind. On the other hand, a product that is designed poorly and is found to be unstable is likely to present a safety risk to consumers irrespective of anchor kits or consumer education.

It is important to note however that no design can take into consideration how a customer will use the product.

Further information on design can be found in the next section.

2) Anchoring

Anchoring can reduce the risk of furniture and televisions toppling over.

It is strongly recommended that anchor systems be preinstalled on furniture units to encourage consumers to use the system. Where they are not, they should at a minimum be provided with the product when sold.

An anchor should be as far from the pivot point as possible, and it is generally recommended that anchors are attached close to the top of the furniture to reduce the risk of toppling.

Further information on the types of anchor kits can be found in the Anchoring section, below.

3) Educating consumers

Consumer education is a vital part of the safety measures and is best done at time of sale.

Retail sales personnel need to understand how to warn customers of the potential dangers from toppling furniture, advise them of the need to anchor and the importance of using the furniture safely.

Consumer education is further explored in the sections below.

Why furniture tips over

When examining the stability of furniture, it is important to understand the mechanics that result in the furniture tipping when climbed on by a child.

An object will not tip over when its centre of mass⁷ is located above and inside its base of support (or pivot point). As shown in Figure 1 below, when a unit is tipped over, providing its centre of mass stays above and inside its base, it will fall back into place. However, if the centre of mass extends over the base then the unit will fall over.

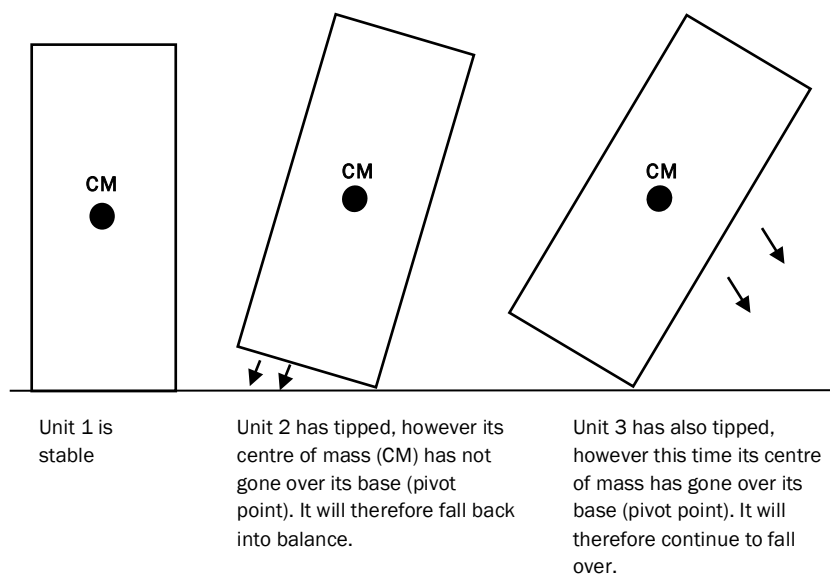


Figure 1

Two factors determine the necessary angle at which the unit will topple over:

1. Where the centre of mass is located; and
2. How deep the base is

As a consequence, a distribution of weight at the top of a piece of furniture or towards the front will result in a much shallower angle required to topple over the furniture. Examples of this are shown below in Figure 2.

⁷ The centre of mass is a position defined relative to an object or system of objects. It is the average position of all the parts of the system, weighted according to their masses (source: <https://www.khanacademy.org/science/physics/linear-momentum/center-of-mass/a/what-is-center-of-mass>)

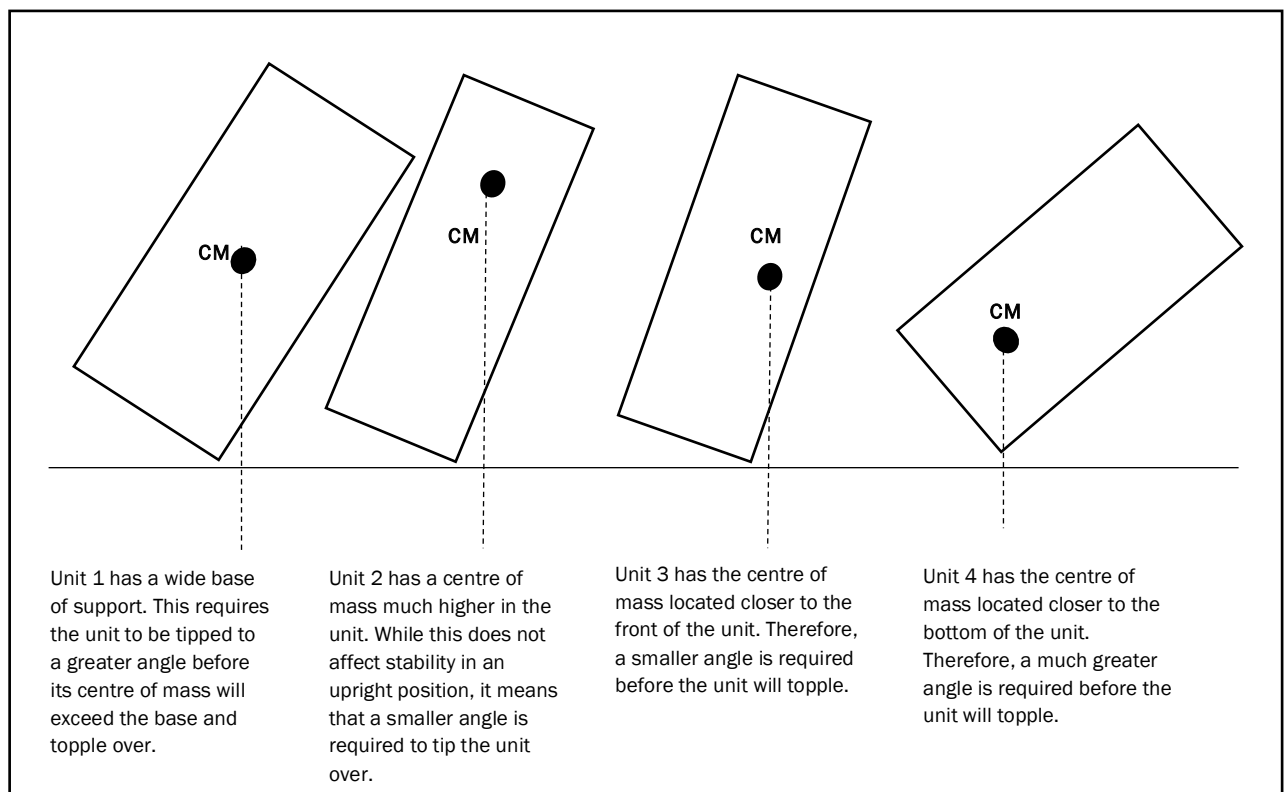


Figure 2

This has a number of implications for furniture design.

With many **casegoods**, such as chests of drawers and display cabinets, the weight tends to be more concentrated towards the front of the unit – the back of the unit is typically a lightweight board (such as plywood), whereas the front of the unit usually has drawer fronts or doors which are much heavier. This results in a centre of mass which is closer to the front of the unit and so the angle required to topple forward is less.

If heavily laden drawers are opened simultaneously, or if a child climbs onto furniture, the centre of mass can move beyond the pivot point. This will cause the furniture to start tilting immediately, and because the centre of mass is beyond the pivot point it will continue to fall as shown in Figure 3.

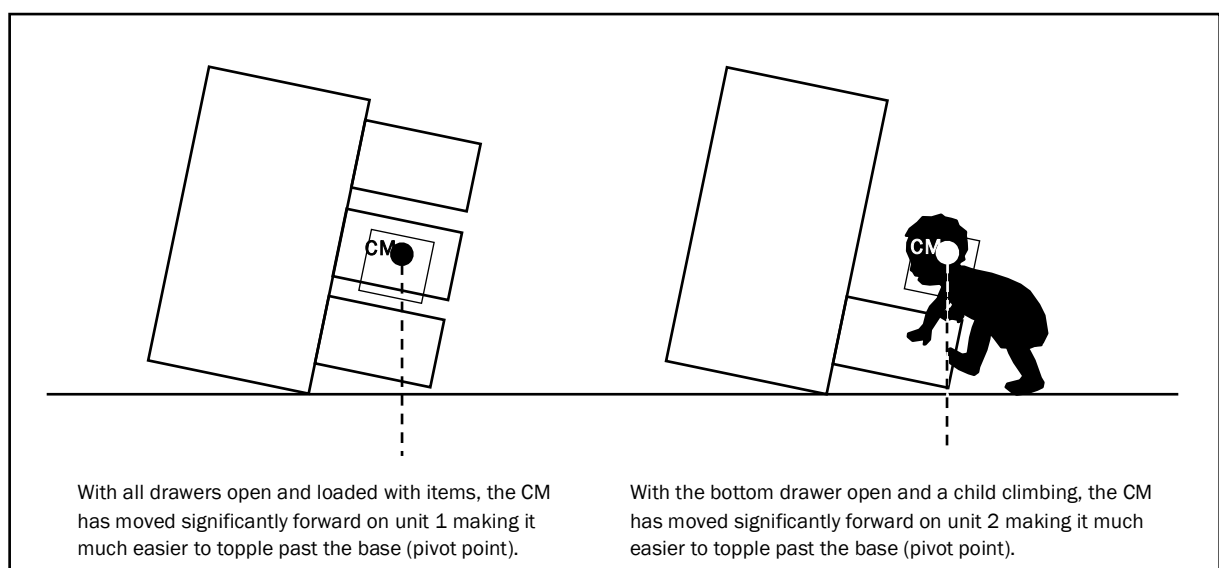


Figure 3

Design guidance

Information in this section was compiled with reference to the Furntech-AFRDI Testing Information Kit – Stability of Furniture.

Consideration should be given to making furniture **deeper**, which increases the base of support and increases the angle at which the unit will topple.

Larger drawers should be located towards the bottom of the unit, encouraging the distribution of weight towards the base and lowering the centre of mass. The front-heavy weight of furniture with drawers is further increased when the drawers are used to store things.

Designs that incorporate **legs** that are set back from the front of the unit should be avoided wherever possible, as this results in more weight being distributed over the base of support.

An item of furniture with a **big ‘footprint’** is better than the same item with a smaller one. By ‘footprint’ it is meant the area enclosed by a line drawn around the furniture’s feet or supports e.g. its glides, slides, castors etc. (see Figure 4 below). The depth of the footprint is more important than its width.

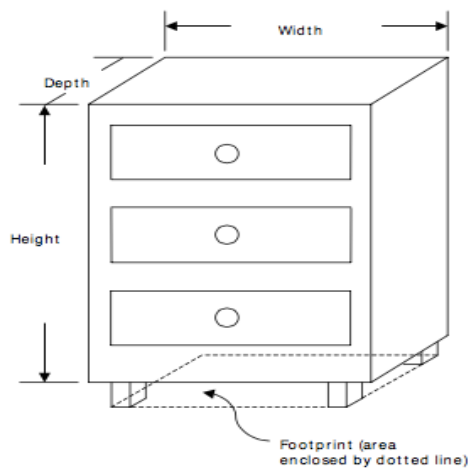


Figure 4

The **height** of an item does not affect compliance with the standard, however in practice, sloping and/or carpeted floors may produce more pronounced instability effects on relatively tall items of furniture.

Generally speaking, the **heavier** a furniture item is the more stable it is likely to be.

While not always commercially viable, other design methods to improve furniture stability can include:

- Incorporating a mechanism which prevents more than one drawer being opened at a time (drawer interlock system / anti-tip interlock system) – like what is commonly found in a filing cabinet
- Making drawers which do not extend all the way out from the unit; as discussed above, the further the weight is distributed outside the base of support, the more likely the unit is to topple
- More evenly distributing the weight, such as solid bases, cabinet backs or ballast

Greater assurance of safety can be obtained by having the furniture tested to the Australian/New Zealand Standard AS/NZS 4935 *Domestic furniture – Freestanding chests of drawers*,

*wardrobes and bookshelves/bookcases – Determination of stability*⁸, which specifies testing requirements for domestic and commercial furniture stability.

While AS/NZS 4935 is currently a voluntary standard, retailers and suppliers can use it to determine if their product's design meets minimum requirements for stability.

To improve the likelihood of a unit complying with the standard:

- drawers should be capable of supporting 29kg on the front edge when extended 2/3 of the length of the drawer; and
- doors should be capable of supporting 29kg on the front edge when opened perpendicular to the cabinet

The standard sets out a method for assessing products' stability when a load is added to the elements most likely to be climbed by a child, such as drawers, doors and shelves. The test method as well as warning labelling for compliant and non-compliant products is specified within the standard.

At the time of publication, the Australasian Furnishing Research and Development Institute (AFRDI) is the only NATA accredited laboratory in Australia accredited to perform testing and certification to the standard.

Television stability

TV unit stability

There are different types of televisions still present in homes - from old cathode ray televisions to newer flat panel models, which come in a variety of sizes and shapes. While the weight of television units has become relatively lighter over time, flat screen television design can adversely affect stability. This is due to two main factors:

- Larger screen sizes and surface areas – resulting in heavier weight being located towards the front of the TV; and
- Smaller footprints, resulting in TV's being able to be located on furniture not designed for such use

Televisions, including flat panel models, toppling onto children continue to be the cause of severe injuries and fatalities.

While the safest option is to mount a television directly to a wall, in some cases this is not possible. If so, the TV should be anchored to the wall or moved as far back as possible.

Televisions sold in Australia are required to comply with AS/NZS 60065 *Audio, video and similar electronic apparatus – Safety requirements*, which includes stability requirements. These requirements cannot take into account every user's circumstances and they are typically only tested with the stands with which they are supplied.

⁸ AS/NZS 4935 is available for purchase through SAI Global www.saiglobal.com.au

Furniture stability when TVs are placed on top

It is common for televisions to be placed on top of a chest of drawers, especially in bedrooms. However, placing TVs on top of furniture may change the stability of the furniture and create its own hazards should the TV or furniture become unstable.

Even if the furniture does not topple, any instability in the furniture can cause the television to topple or slide off, creating a serious hazard.

It is recommended that televisions not be placed on top of furniture items which have not been designed for that purpose, especially where the customer has children.

If it is necessary to place a television on top of furniture, it is recommended that it be set back as close to the wall as possible. Care needs to be taken that the television is not too big for the furniture item and it be separately anchored to the wall (in addition to the furniture being anchored to the wall). Even without the furniture tipping, the TV can slide off and cause injury or death.

Anchoring

Anchoring products to a wall (or other structure) reduces the tip-over risk.

Furniture anchors

There are many types of wall anchors available. The most common type is a nylon strap with either metal eyelets or metal plate screw attachments. Metal 'L' bracket connectors and rope/wire straps are also frequently used.

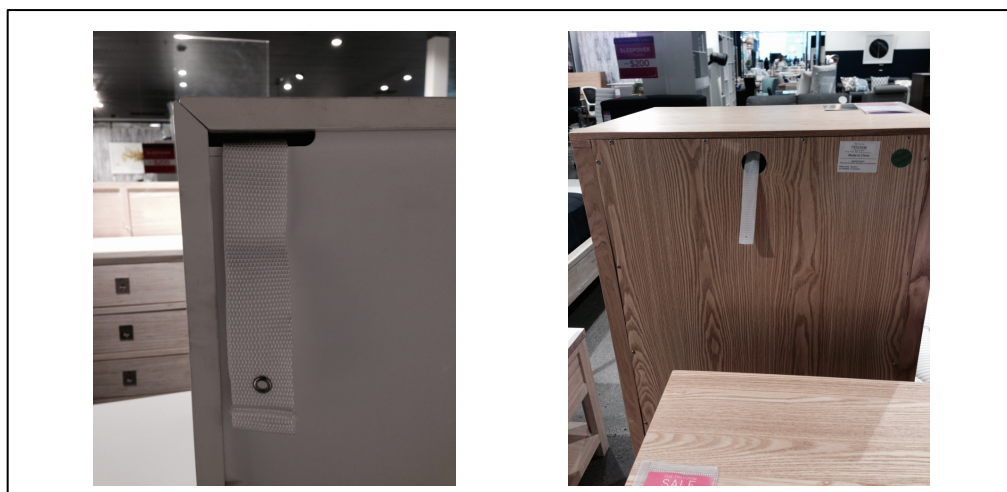
Anchoring devices may be preinstalled to the unit or supplied as a kit, but are not always supplied with fixing hardware to attach the anchor to a wall or other fixing surface. This is due to varieties of walls and surfaces that the anchor could be attached to.

Examples of commonly used wall anchors:



It is recommended all furniture within scope be supplied with anchor kits. Even a well-designed unit can still topple in certain circumstances.

It is further recommended that the anchor system is preinstalled to the unit, as this will encourage consumers to use the system. Preinstalled systems will preferably include fixing plates, or a hole in the tether to attach the item to the wall, as shown here:



Where the anchor device is not attached, pilot holes or guides should be provided to the customer to allow for correct placement of the wall anchor.

When selecting and installing anchoring devices to prevent toppling, manufacturers should:

- Ensure the device is suited to the furniture item
- Install the device at a suitable position on the furniture item or carefully show where the anchoring device(s) should be installed
- Ensure the device is fit for purpose*
- Provide a means to minimise slack in a tether strap (preferably less than 5mm)
- Provide user instructions on how to anchor the furniture and warnings on the need to do so (see Appendix 1)

*ASTM standard *F3096 Standard Performance Specification for Tipover Restraint(s) Used with Clothing Storage Unit(s)* provides a test method for strength of anchoring devices.

The US Consumer Product Safety Commission has published a report [*Tipover Prevention Project: Anchors without Tools*](#) to address cases where consumers are unable to install anchor kits.

Television anchors

If a television is not mounted directly to a wall, the following should be considered:

- It is recommended televisions include mounting points for anchor straps. Units can be sold with anchor devices, or they should be made available at point of sale
- To increase stability, televisions should only be placed on surfaces that are able to accommodate their size. When placed in the centre of the furniture, it is suggested that there is at least 50mm clearance on all four sides to reduce the risk of tip-over
- Televisions should be anchored to either the wall or other suitable surface to prevent the unit from toppling. If the unit is placed on a taller product (such as a tallboy) it is not recommended to be mounted to the furniture, as this may cause the entire unit to tip-over if it becomes unstable

Furniture 'Entertainment' units

Furniture units designed to support a television (and similar large items) should also include information for consumers - instructions on how to anchor or tether the equipment to the furniture and warnings on the need to do so.

Other products

As mentioned earlier, other products such as baby change tables, bunk bed units and freestanding cooking ranges can be prone to toppling in use. Anchoring to a wall or other fixture can help prevent this. These products should include information for consumers - instructions on how to anchor or tether the item and warnings on the need to do so.

Consumer education

Awareness raising and education can be done in multiple ways:

- Point of sale is the ideal time to alert customers to the potential hazards and guide them toward effective product choice and the importance of anchoring.
- Consumers should be made aware of the potential for furniture instability.
- To help customers make an informed decision information should be made available prior to purchase. The best way to achieve this is with clear, easy to understand, point of sale information.
- Staff should be trained to inform customers that the product needs to be securely fastened to a wall or other suitable surface if young children may be exposed

Providing consumer information

To ensure that consumers are able to make an informed decision about the purchase of a product, and how a wall anchor should be secured, information should be provided as:

Pre-sale information that advises customers the product should be attached to a wall or other suitable surface (regardless of whether the unit has passed stability testing) to prevent tip over if overloaded/incorrectly used.

Consumer information on the product that advises customers of the risk of toppling furniture, and clearly informs customers that the product is recommended to, or required to, have a wall anchor attached securely to a wall or other suitable fixture.

Assembly/installation instructions that reinforce the consumer information/advice, clearly show how to attach the wall anchor to the product (if not already pre attached) and how to attach the wall anchor to the wall or other suitable fixture.

Company website should include consumer information and/or videos as well as copies of all assembly and user instructions for ongoing reference by customers.

The customer should be made aware if the fixing device to attach to the wall or other surface is not included.

All consumer information must be clear and easy to understand.

Further guidance and examples are provided in [Appendix 2](#).

Retail staff knowledge

As consumers are often unaware of tip-over hazards, point of sale is the ideal time to alert customers, guide them toward effective product choice and emphasise the importance of anchoring.

To do so it is essential that sales staff have an understanding of tip-over risks and the simple measures required to address the hazard.

General

Any staff member selling furniture items to the public that require anchor fixing should be made aware of:

- The retailer's policy regarding the supply of items requiring anchor fixing
- Which items are covered by this policy and which are not
- Why securing items to wall is important for safety
- Safety tips related to tip-overs
- How to explain this information to customers

This information should be easily available to selling staff and form part of any specific training related to furniture or safety training.

Items covered by Anchor policy and which items are not

Staff should be clearly advised what items are affected by this policy in terms of:

- Product types and/or
- Product categories and/or
- Product ranges and
- Products above a specified height

Likewise, staff should be clearly advised of the type of furniture not covered by this policy.

Safety Tips to Prevent Tip-over

Staff should understand the different ways to reduce the risk of furniture tip-over:

- The importance of consumer awareness-raising at time of purchase
- Stability through design – understand design principles that affect a product's tip-over potential, including compliance with AS/NZS 4935
- Anchoring the furniture item to the wall to prevent tip-over. (Customers should be advised whether the item comes with the anchor kit or not and what hardware is supplied or not)
- The need to keep toys and TVs off tall units like a tallboy
- Children using drawers to climb a unit can cause toppling. Child safety drawer locks can help prevent this

- Hardware stores can assist with appropriate hardware for wall types
- Local tenancy agencies may be able to help renters with any concerns about their rights to fix wall anchors.

How to explain this information to customers

- Staff should ensure that customers are made aware of the above information during the sales process and prior to the financial transaction
- Where possible, the item on display will be affixed to the wall so the customer can see how the anchor system works
- If this is impractical then Point of Sale (POS) signage should be visible so customers are made aware of anchor devices or points (on-product information)
- Staff should be able to demonstrate how anchor systems work
- Any website used by the company promoting the item should advise consumers of the anchor being provided and its importance
- Where possible, a POS reminder to prompt sales staff should advise the customer about the importance of anchoring
- Assembly instructions should be available for customers and sale staff during the sale

A Staff Fact Sheet template is provided at [Appendix 3](#) and the Consumer education details are at [Appendix 4](#).

APPENDICES

- Appendix 1 Instruction manuals
- Appendix 2 Consumer information – Point of sale and On-product
- Appendix 3 Staff education fact sheet
- Appendix 4 Customer education material
- Appendix 5 Action checklist
- Appendix 6 Further reading and resources
- Appendix 7 Australian incidents

Instruction manuals

Assembly and installation instructions and warnings

General

Consumer information leaflets and instruction manuals should contain a suitable warning under the warning/hazard section advising the customer of the hazards of toppling furniture.

Any furniture item that is intended to be secured to a wall and/or is supplied with an anchor device should come with:

- information explaining the item should be affixed to avoid the risk of tip-over;
- clear instructions showing how to secure the item to a wall with the device provided; and
- regular maintenance instructions.

All information should:

- be available digitally for the end-user to download or have emailed for reference if the original is lost or misplaced; and
- provide a link to where the customer can source additional information about wall anchor safety (such as the Product Safety Australia website).

Instruction manuals should have sufficient diagrams on how to install an anchor kit. Including anchoring instructions as a 'Step' in the assembly helps ensure anchoring is implemented.

ISO Guide 37 – *Instructions for use of products by consumers* sets out guidance for well written user manuals. It recommends consumer testing and evaluation as part of the manual writing process.

There should be clear advice within the instructions on how the customer should correctly attach the wall anchor to the product (if not pre-attached) and how this should be secured to the wall.

Manuals should also contain information on how different types of walls will require a certain type of screw for it to be secure.

The type of wall is instrumental to the type of hardware used. When an anchor kit is provided, it should be mentioned that different types of walls require specific hardware for its application e.g. drywall hardware is different from a brick wall.

Instruction manuals should have a maximum recommended even distribution weight that each shelf can support– see Example Figure A1.

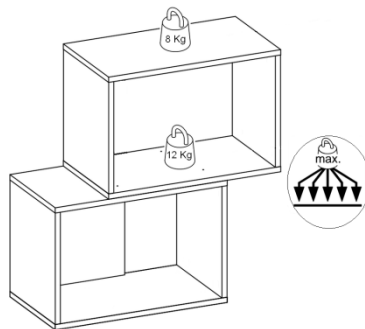


Figure A1

All instructions and information leaflets should come with either the importer's, wholesaler's or retailer's contact details.

Anchor kit or anti-topple bracket recommendation

As some retailers supply screws and brackets and some don't, it is recommended that the following information is available in the instruction manual:

1. **Items not supplied with an anchor device but intended to be secured to a wall**
 - 1.1. Pictorial and/or written instructions must explain this item is intended to be secured to a wall; and
 - 1.2. It must state where to source an appropriate device and hardware; and
 - 1.3. Specific warnings and advice on safe practices to avoid tipping furniture, as described below
2. **Items supplied with an anchor device but no associated hardware** (i.e. screws, plugs)
 - 2.1. Pictorial and/or written instructions must explain how to secure the item to a wall;
 - 2.2. If the item is self or partial assembly, these instructions shall follow the correct sequence so they do not adversely affect the item's ease of assembly or functionality;
 - 2.3. It shall state where to source such hardware; and
 - 2.4. Specific warnings and advice on safe practices to avoid tipping furniture, as described below
3. **Items supplied with an anchor device and associated hardware**
 - 3.1. Pictorial and/or written instructions must explain how to secure the item using a wall; and
 - 3.2. If the item is self or partial assembly, these instructions shall follow the correct sequence so they do not adversely affect the item's ease of assembly or functionality; and
 - 3.3. Its instructions shall state:
 - a) which wall type(s) the hardware is suitable for;
 - b) what tools may be required;

- c) guidance on how to install and fit the hardware;
- d) any limitations the hardware may have (such as requiring it be affixed to a wall stud);
- e) which wall type(s) the hardware is not suitable for.

3.4. Specific warnings and advice on safe practices to avoid tipping furniture, as described below

Assembly Instructions

Clear consumer advice should be placed in a prominent position in the assembly instructions notifying customers of the dangers of toppling furniture. The advice should contain a statement, as appropriate:

- that the wall anchor installed on the product be used to permanently affix it to a wall/other suitable surface to avoid serious injury;
- that the wall anchor should be attached to the product and permanently affixed to a wall/other suitable surface to avoid serious injury;
- where no fixing device is included, advising customers to seek professional advice if they are unsure of what device to safely secure the product to a wall/other suitable surface.

There should be clear advice within the assembly instructions on how the customer should correctly attach the wall anchor to the product (if not pre-attached) and how this should be secured to the wall – see Example Figure A2.

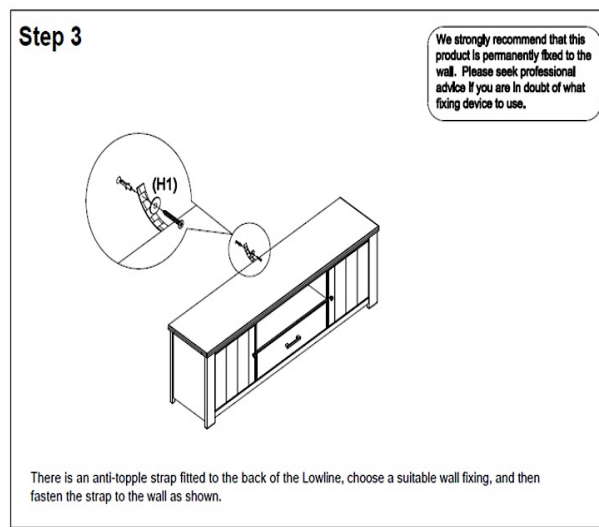


Figure A2

Specific warnings and information

Instructions or information leaflets should contain the following or similar wording, as appropriate, including warnings, a warning triangle and emphasis using **bold** or CAPS or similar:



WARNING:

It is STRONGLY RECOMMENDED that you ANCHOR this product.

Toppling furniture can cause serious injuries and death.

This product has/has not* been fitted with an anchor strap/bracket* (*select as appropriate). To prevent your furniture from tipping forward it is strongly recommended that you **securely attach this product** to a wall or other solid surface, using the anchor straps/brackets provided and appropriate fixings.

IMPORTANT:

Regularly check that anchors are securely maintained.

Use safety **drawer locks** to prevent children climbing.

Stability of tall items may be affected by thick pile carpet or uneven floors.

Do not place unanchored televisions on furniture

CAUTION:

For your safety when attaching the anchor fixings, please note the following:

- Check for any electrical wires or plumbing inside the wall before drilling any holes (if you are unsure please seek professional advice from a qualified tradesperson)

- Walls are constructed from different materials, for example, masonry (solid brick) or plasterboard lined cavity walls (hollow). It is important that you use the appropriate wall fixings for your wall type.

- Your local hardware store will have the necessary drills and fixings and can offer advice if needed. If in doubt, engage the services of a qualified tradesperson to install and anchor the product.

Consumer information – Point of sale and On-product

Point of Sale

Point of sale information such as a swing tag should be easily visible or readily made available for customers before they purchase a product.

This includes online sales sites, which should display a warning and provide a link to consumer education material.

Information should include a warning similar to the examples below.

Example 1: (Anchor device fitted/provided but no wall fixings)



THIS PRODUCT SHOULD BE ANCHORED TO A WALL OR OTHER SUITABLE SURFACE TO AVOID SERIOUS INJURY.

To help avoid any serious or fatal injury, this product has been fitted with a wall strap to prevent toppling. We strongly recommend that this product be permanently fixed to the wall or other suitable surface. Fixing devices are not included since different surface materials require different attachments. Please seek professional advice if you are in doubt what fixing device to use.

Example 2: (Product has passed stability tests; Anchor device fitted/provided but no wall fixings)



THIS PRODUCT SHOULD BE ANCHORED TO A WALL OR OTHER SUITABLE SURFACE TO AVOID SERIOUS INJURY.

This product has passed stability tests in Australian/New Zealand Standard 4935, however to further reduce the risk of serious or fatal injury, this product has been fitted with a wall strap to prevent toppling. We strongly recommend that this product be permanently fixed to the wall or other suitable surface. Fixing devices are not included since different surface materials require different attachments. Please seek professional advice if you are in doubt what fixing device to use.

Non-Removable Sticker on Product

Placement of a non-removable sticker should be attached as near as practical to the anchor device that alerts consumers to the risk of serious injury if the product has not been secured to a wall of other suitable surface.

Example label wording:



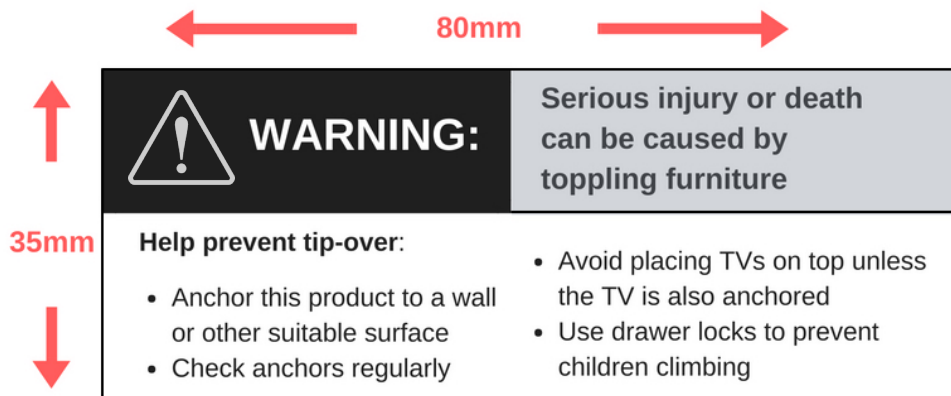
WARNING

Serious injury or death can be caused by toppling furniture.

Help prevent tip-over:

- Anchor this product to a wall or other suitable surface
- Use drawer locks to prevent children climbing
- Avoid placing TVs on top unless the TV is also anchored
- Check anchors regularly

Example label layout:



NOTE: AS/NZS 4935:2009 includes specifications for warnings and labelling. These are different from those outlined in this Best Practice Guide Appendix 2, above. Suppliers wishing to gain compliance with the entire AS/NZS 4935 (e.g. for certification purposes) will need to use the warning labels and swing tags prescribed in Appendix A of that Standard.

However suppliers wishing to use the labelling/markings words and methods recommended in this document could do so, and could still have their product tested to AS/NZS 4935 for stability. This would allow test results to be declared in product marketing.

Staff education fact sheet

(To be accompanied by the company's policy statement)

Why furniture and television tip-over prevention is important

We know that young children like to explore their world and climbing is all part of that experience. But young children are being crushed by falling furniture and televisions.

At least 15 children under nine years old have died in Australia during 2000-2016 after domestic furniture or TVs fell on them. This is around one death per year. A television with just a 37 inch screen was responsible for a Western Australian fatality in 2013.

Each year more than 100 children are brought to hospital emergency departments after furniture has fallen onto them. These include crush injuries to the head, as well as broken bones. One quarter of parents surveyed reported experiencing a furniture or TV tip-over in their homes⁹.

These incidents are easily prevented, but it takes awareness and action by consumers. Retail staff can help with this and have a key role to play.

Guidance information is available in a video produced by the ACCC available on YouTube. The video is helpful for both retail staff and consumers.

Items covered by Anchor policy and which items are not

It is important to understand tip-over coverage across the product range:

- Product types and/or
- Product categories and/or
- Product ranges and
- Products above a specified height

Point of sale information

Staff should ensure:

- POS signage is maintained as visible, so customers are made aware of anchor (on-product information)
- Supplies of consumer information literature are maintained
- Assembly instructions should be available for customers and sale staff during the sale
- Customers are made aware of all relevant information during the sales process and prior to the financial transaction

⁹ ACCC Consumer awareness survey of 2015 <http://www.productsafety.gov.au/content/index.phtml/itemId/1014173>

- Where possible, the item on display will be affixed to the wall so the customer can see how the anchor system works

Safety Tips to Prevent Tip-over

It is important to understand the different ways to reduce the risk of furniture tip-over:

- The importance of consumer awareness-raising at time of purchase
- Stability through design – understand design principles that affect a product's tip-over potential, including compliance with AS/NZS 4935
- Anchoring the furniture item/television to prevent tip-over (Customers should be advised whether the item comes with the anchor kit or not and what hardware is supplied or not)
- The value of child safety locks for drawers
- Hardware stores can assist with appropriate hardware for wall types

Guiding customer choices

Check whether customers may have young children in the place where their furniture will be located, and advise on:

- choosing stable products
- the importance of anchoring
- how to anchor

If customers are concerned that property rental terms disallow attaching things to a wall, firstly suggest they double check as some exceptions may be made for this purpose. Otherwise advise the customer about choosing a more stable item and reinforce the other safety messages.

This information is available in the company tip-over prevention policy document.

Key safety messages for children's safety

- Anchoring is a vital strategy to prevent tip-overs. Anchors are easy to install
- The inconvenience of putting a screw into a wall (and having to patch it later) is outweighed by the importance of preventing a serious tip-over hazard to your children
- One of the reasons children attempt to climb furniture is to access a child-appealing item, such as a toy or television. Therefore, placing a television on top of a furniture item may make it more likely that a child will attempt to climb the product
- Weight load distribution of product stored inside of the product can affect its stability, so it is recommended that you place heavier items as low down in the furniture unit as possible
- Children using drawers to climb a unit can cause it to tip over. Drawer locks can help prevent this
- Placing furniture on thick pile carpet can affect stability

Customer education postcard/flyer

To have education material in store to give to customers, retailers should arrange printing of the governments' consumer information postcard (which includes the Australian Consumer Law logo)

The master file for the government postcard can be obtained from the NRA website.

Manufacturers/importers may also choose to include a postcard/flyer in packaged goods.

PLEASE NOTE: Co-branding with corporate logos or names is not permitted on the government postcard.

Action checklist

This checklist is not sequential and can be actioned in any order. For example, you don't have to wait until you have reviewed all products at risk of toppling before implementing the point of sale consumer education steps.

- | | |
|--|--------------------------|
| Arrange for all at risk products to include anchor devices | <input type="checkbox"/> |
| Review all products for stability | <input type="checkbox"/> |
| Ensure all products include: | |
| • POS and package information | <input type="checkbox"/> |
| • Warnings | <input type="checkbox"/> |
| • Anchoring instructions | <input type="checkbox"/> |
| • Consumer advice | <input type="checkbox"/> |
| Ensure effective quality assurance for at risk products including wall anchor devices | <input type="checkbox"/> |
| Include consumer education and advice on website and make available at POS | <input type="checkbox"/> |
| Include assembly instructions and any other critical product information on website | <input type="checkbox"/> |
| Arrange availability of anchor kits at point of sale where not supplied with furniture/televisions; and lock kits for drawer units | <input type="checkbox"/> |
| Provide training for staff, especially those with direct customer interface roles | <input type="checkbox"/> |
| Provide clear reference material for POS staff on company policy, customer education, product range anchor details | <input type="checkbox"/> |
| Establish a system to ensure compliance with the company's policy | <input type="checkbox"/> |

Further reading and resources

Furniture tip-over prevention resources

Websites

Australian Competition and Consumer Commission's Product Safety Australia website
www.productsafety.gov.au

Furntech - Australasian Furnishing Research and Development Institute,
<http://www.furntech.org.au>, including Furntech-AFRDI Testing Information Kit – Stability of Furniture

Research reports

ACCC Consumer awareness of furniture stability risks and prevention – Research report, available at www.productsafety.gov.au

US Consumer Product Safety Commission Project report: Anchoring furniture and televisions without tools, available at www.cpsc.gov

Kids in Danger and Shane's Foundation report: Furniture stability: A review of data and testing results, available at www.kidsindanger.org

Video

Climb, tumble and fall, available on www.productsafety.gov.au and YouTube

Toppling furniture safety - anchor it and protect a child, available on www.productsafety.gov.au and YouTube

Product safety general standards and guides

Standards Australia Handbook 295: Product Safety Framework

ISO 10377: Consumer product safety – guidelines for suppliers

ISO 10393: Consumer product recall – guidelines for suppliers

ISO/IEC Guide 37 - Instructions for use of products by consumers

ISO/IEC Guide 50 - Safety aspects - Guidelines for child safety in standards and other specifications (Free of charge)

ISO/IEC Guide 51 - Safety aspects - Guidelines for their inclusion in standards (Free of charge)

HB 89-2012 Risk management - Guidelines on risk assessment techniques

AS 4226-2008 Guidelines for safe housing design

Australian incidents

The following reports show incidents where three young children have been killed by toppling furniture and televisions.

VIC News

Toddler killed in tragic bookcase accident in Clear Lake, Victoria remembered as 'perfect child'

Wes Hosking, Herald Sun

August 24, 2016 12:00am

Subscriber only

A TODDLER killed when a bookcase fell on him in a tragic accident has been remembered as a "perfect child" and loving angel.

Three-year-old Blake Shaw was sitting on the floor of his family's farmhouse at Clear Lake, southwest of Horsham, when the freestanding case fell without warning.

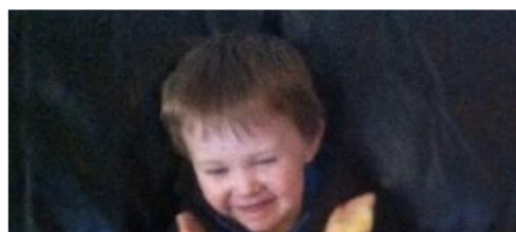
The beloved little boy's devastated parents were last night struggling to comprehend the tragedy.

Tim Shaw said he and partner Kirstie, who moved to the area from the city, adored their son.

"The worst thing the kid ever did was smile," Mr Shaw told the *Herald Sun*. "We moved for the kids."

Investigations into what caused the fall of the bookcase, understood to be heavy, were continuing.

Blake had not been trying to climb the structure and was well away from it when it suddenly fell, the family said. It had been placed in a corner and pushed hard against the wall.



From Herald Sun

Parents' warning after son crushed in freak accident

The West Australian on October 15, 2015

The heartbroken mother of a baby boy who was killed after being pinned under a heavy chest of drawers says she will never get the image of her son lying limp and lifeless out of her mind.

Skye Quartermaine urged other parents to learn from the tragedy that claimed the life of her 21-month-old son Reef at the family's Yokine home on Tuesday.

Describing her son as "our little blonde-haired, blue-eyed angel", Ms Quartermaine said Reef was having an afternoon nap in his bedroom when she last checked on him.

Ms Quartermaine said she didn't hear the drawers fall but found Reef a few minutes later. She assumed Reef had been climbing the drawers when they fell.



Twenty-one month old Reef Kite was crushed in the accident in the family home.

From The West Australian

Toddler ‘warned’ about climbing before TV crush death

APRIL 5, 2016



Perth toddler Jasmine Cammilleri died after a TV fell on her in 2013.

AAP

A GRIEVING Perth mother has spoken out to warn others of the dangers of unsecured televisions at an inquest into the death of her toddler daughter.

Ms Cammilleri had left her two-year-old daughter alone for 10 minutes watching *SpongeBob SquarePants* on television but rushed back into the room when she heard a loud thud and the toddler screaming.

Jasmine Lilian Cammilleri was lying on her back with the 94cm (37-inch) LED television crushing her chest, having pulled the unsecured appliance down after climbing onto the cabinet.

An ambulance was called and Jasmine was rushed to hospital where she died that day in February 2013.

The inquest heard that it had not occurred to Mrs Cammilleri that the lightweight television posed a problem. She said she had pushed the television towards the back of the cabinet a couple of days before the accident because she thought that would make her daughter less interested in trying to reach it.

From The West Australian



National
Retail
Association

www.nra.net.au