Shade

Shade can be a practical and effective form of sun protection. Well-designed and positioned shade can significantly reduce UV exposure and create cool, comfortable spaces for physical activity and recreation. Research shows that if shade is available people will use it.

The sun's ultraviolet (UV) radiation is the main cause of skin cancer.

Sun protection is recommended whenever the UV level reaches 3 or above.

Download the free SunSmart app or visit sunsmart.com.au to check what times you need to use sun protection each day.

During the sun protection times, protect yourself in five ways:

1. **Slip on clothing that covers as much skin as possible.**
2. **Slop on SPF30 (or higher) broad-spectrum, water-resistant sunscreen 20 minutes before you go outdoors and re-apply every two hours.**
3. **Slap on a broad-brimmed hat that shades your face, head, neck and ears.**
4. **Seek shade.**
5. **Slide on sunglasses that meet the Australian Standard for UV protection.**

Planning effective shade

Ideally shade should be considered during the planning phase of all new buildings and facilities.

Good planning ensures effective shade. Whatever the scale of the project:

- identify where and when shade is needed
- understand your shade options
- consider built, natural or portable shade.

Because UV radiation is reflected and scattered, some UV can still reach you even when in the shade.

What is the shaded area to be used for?

Is the area mainly used for passive activities, active play, sports, spectators or all of these? This will help determine the best type of shade structure to use.

Will the shade affect user comfort?

Shade areas must provide UV protection during peak UV periods (typically from mid-August to the end of April in Victoria) and provide cool spaces in summer. Adequate light and ventilation are also important. If the shaded area is permanent, it also needs to be warm and protected from the weather in winter so that people will still want to use it.

Understanding your shade options

Built shade structures

- Permanent structures: need to be well-planned to ensure maximum UV protection at peak UV times. They can also protect users from weather (including heat and rain).
- Adjustable systems: often quite flexible as they allow for changes in shade location as the sun moves during the day and at different times of the year.
- Shade sails: usually require minimal support structures, making them ideal

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when you have limited space. Shade sails should be installed at an angle to help with rain run-off and to allow for best possible shade based on the path and angle of the sun at various times of the day and year. Location for safety is also a key consideration. Their design and construction is a specialised field so professionals should be engaged to design, locate, build and maintain this type of shade.

- Pre-made structures: can offer a cost-effective, readily available shade solution for installation on most sites. Planning for safety and positioning is important to optimise UV protection at peak UV times.
- Textile or coated fabrics: such as canvas can provide up to 99% UV protection. Features can include tight weave; coating to resist mildew, rot and light exposure; and water resistance. These fabrics often have a shorter lifespan than shade cloth.
- Shade cloth: may be either woven or knitted and allows some light, air and water through. Good-quality shade cloth, with a minimum UV Effectiveness (UVE) rating of at least 80% UVE, is an important part of a shade structure.

Good quality shade depends on more than the structure and fabric you use. The location of the structure in relation to the area you want shaded, its size and height, and any surrounding reflective surfaces, will all contribute to the quality of shade provided.

UVE (%)	Protection category
80 – 90.9	Effective
91 – 94.9	Very effective
95+	Most effective

Shade fabric under the Australian Standard for 'human shade protection' is classified according to ultraviolet effectiveness (UVE)[1]

Natural shade

Natural shade is well-suited to large recreational areas such as parks and reserves and has a cooling effect and other environmental benefits.

The most suitable shade trees:

- have large canopies and dense foliage
- are appropriate for the soil type, climate and available water in the area, and
- are easily accessible.

A medium height tree usually provides the best shade. Be mindful of species with spiky branches, fruit or seed pods that could drop or attract bees or cause allergic reactions.

It is best to seek professional advice about your site and a tree species that will perform well over many years. Local councils usually have trained horticulturalists who will be able to suggest the best tree for your conditions.

Portable shade

Portable or temporary structures are easy to set up and take down. They include umbrellas, large tents, marquees and beach shelters. These are good for spaces that only need shade occasionally but can be less stable in high winds. Ensure they are securely erected and stabilised and have plans in place for quick removal when conditions change.

More information and resources

For more information, visit sunsmart.com.au or contact Cancer Council on 13 11 20.

For more information about how to protect your skin, visit sunsmart.com.au/protect-your-skin

Certain health conditions and medications mean some people are more sensitive to UV radiation and always need to use sun protection regardless of the UV levels. For more information, visit sunsmart.com.au/skin-cancer/risk-factors-for-skin-cancer .

References

1. AS 4174:2018 Knitted and woven shade fabrics

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