

Baseball Victoria

ADVERSE WEATHER POLICY

Policy Name	Adverse Weather Policy
Policy Coverage	Baseball Victoria events and competitions
Date Created	28 January 2022
Version	1
Actions	Board to approve
Review	Annually
Baseball Victoria Contact	Kellie Thomas Operations
Authorised By	

Contents

1	Extreme weather	3
2	UV exposure and heat illness	3
	Heat illness	4
	Children and heat stress	5
	Heat Illness Chart	5
	Ambient temperature	5
	Wet Bulb Globe Temperature	6
	Check local weather conditions	6
3	UV heat exposure and heat illness checklist	6
	Shade	6
	Clothing	7
	Sunscreen	7
	Airflow	7
	Hydration	7
	Education and information	7
	First Aid	8
	Individual risk factors	8
4	Air quality	8
5	Hail	8
6	Rain	9
7	Lightning	9
8	Chill	9
9	Useful Resources	10
	Appendix A - Extract from Baseball Victoria Playing Conditions	11
	Appendix B - Air Quality Index	12
	Table 1. GUIDELINES FOR EXERCISE IN SMOKE AFFECTED ENVIRONMENTS – Australian Institute of Sport	13
	Table 2 ACTIVITY LEVELS BASED ON VISIBILITY - Environment Protection Authority	15

of its participants towards the dangers of physical activity in the heat and during extreme weather conditions. With this in mind, Baseball Victoria's Adverse Weather Policy has been developed which enhances the guidelines produced by Sports Medicine Australia.

The purpose of this Adverse Weather Policy document is to outline the standards and guidelines regarding the management of Adverse Weather in baseball in Australia.

This policy is for all participants involved in baseball, including players, officials, umpires, coaches, parents, volunteers, staff and spectators.

Clubs and Associations are required to adhere to Baseball Victoria's Adverse Weather Policy to develop their own guidelines that incorporate any local competition by-laws or regulations that may be in place in relation to the modification, suspension or cancellation of training activities, competitions or events due to adverse weather conditions.

1 Extreme weather

Extreme weather may be defined as weather that threatens the immediate or long-term safety of individuals, as a result of rain, hail, lightening, wind chill or heat.

The risk is determined in conjunction with Sport Medicine Australia's Guidelines as well as the Bureau of Meteorology's forecast conditions.

Weather condition	Extreme weather determinant
Ambient temperature	> 360 Celsius
Wet bulb globe temperature (shade)	> 30
Apparent temperature (wind chill)	< 20 Celsius
Wind speed	> 40km per hour
Rainfall	> 80mm within 24 hours

Notes:

Wind may create additional hazards in regard to trees, branches or other materials becoming projectiles. Rain also needs to be considered in relation to its impact on the safety of the playing surface.

2 UV exposure and heat illness

The sun's UV is both the major cause of skin cancer and an important source of vitamin D. It is recommended that sport and recreation settings take a balanced approach to UV exposure that reflects the varying levels of UV throughout the year and across Australia.

Overexposure to UV can cause skin damage, eye damage and skin cancer. and recreation providers can reduce the risk associated with UV overexposure by implementing some simple preventative strategies. Whenever UV levels reach three and above, sun (UV) protection is needed.

During this time, use a combination of five sun protection measures:

- 1. Slip on sun-protective clothing that covers as much skin as possible.
- 2. Slop on SPF30/50+ sunscreen and lip balm make sure it is broad spectrum and water-resistant. Apply sunscreen 20 minutes before going outdoors and every two hours afterwards.
- 3. Slap on a hat that protects your face, head, neck and ears.
- 4. Seek shade.
- 5. Slide on some sunglasses make sure they meet the Australian standard.

Even if you cannot utilise some of these points when playing, ensure that you follow them in off-diamond activities.

You can easily find the daily UV alert by checking the newspaper or looking on the SunSmart <u>sunsmart.com.au</u> or Bureau of Meteorology <u>bom.gov.au</u> websites.

For further information relating to UV exposure and heat illness, visit smartplay.com.au.

Heat illness

Heat illness can occur when a participant exercises vigorously in hot conditions. It may also occur with prolonged exposure to hot weather, even if activity is low intensity. In cool weather, heat illness can also present when exercising at high intensity.

Heat illness in sport presents as heat exhaustion (more common) or heat stroke (rare but life threatening). Symptoms may include light-headedness, dizziness, nausea, obvious fatigue or loss of skill and coordination, unsteadiness, cessation of sweating, confusion, aggressive or irrational behaviour, collapse or ashen grey pale skin.

Responses to heat vary; it is not possible to provide overall recommendations about limiting conditions in hot weather. However, heat illness can be prevented by knowing the risk factors and applying prevention strategies to minimise risk. Factors that increase the risk of heat illness include:

- high exercise intensity (eg exercising close to your personal capacity)
- lack of fitness (eg exercising at an intensity or duration beyond your current capacity)
- previous history of heat illness or heat intolerance
- age junior and veteran participants are at higher risk due to their age
- illness and medical conditions (eg current or recent infectious illness or chronic health disorders at any age)
- high air temperature and high humidity (see Heat Illness Chart below)
- low airflow or movement (no wind)
- prolonged exposure to hot conditions, heavy clothing and protective clothing (eg padding)
- lack of acclimatisation to being active in warm and humid conditions
- dehydration (inadequate water intake before exercise and during activity longer than 60 minutes)
- radiant heat from surfaces such as black asphalt, concrete or black rubberised synthetic surfaces can intensify hot conditions.

Children and heat stress

Children sweat less and get less evaporative cooling than adults. In warm and hot weather, they have greater difficulty getting rid of heat; they look flushed and feel hotter and more stressed than adults.

Overweight children are particularly disadvantaged exercising in warm weather.

Children seem to be effective at 'listening to their bodies' and regulating their physical activity. For this reason, children should always be allowed to exercise at their preferred intensity. They should never be urged to exercise harder or compelled to play strenuous sport in warm weather. If children appear distressed or complain of feeling unwell, they should stop exercising.

In warm weather, wet sponging will make children feel more comfortable. Drinks should be provided for children playing sport.

Heat Illness Chart

The Heat Illness Chart is a guide to the relationship between ambient temperature and the risk of heat illness. When observing this Chart, consider:

- there are not clear demarcations in risk between temperature ranges
- stress increases with rising air temperature and relative humidity
- at low ambient temperatures the body can cope with higher humidity than at high ambient temperatures
- stress increases with relative humidity as it becomes more difficult to regulate body temperature due to a decrease in the evaporation of sweat (a mechanism used to keep the body cool in the heat and while exercising)
- individual risk factors including acclimatisation to local conditions.

Ambient temperature

Easily understood, most useful on hot, dry days.

Ambient Relative humidity Risk of heat illness Recommended management for sports		Recommended management for sports activities		
temperature OC	temperature OC			
15 – 20		Low	Heat illness can occur in running.	
			Beware over-motivation.	
21 – 25	Exceeds 70%	Low – Moderate	Increase vigilance.	
			Beware over-motivation.	
26 – 30	Exceeds 60%	Moderate – High	Moderate early pre-season training.	
			Reduce intensity and duration of play/training.	
			Take more breaks.	
31 – 35	Exceeds 50%	High – Very High	n – Very High Uncomfortable for most people.	
			Limit intensity, take more breaks.	
			Limit duration to less than 60 minutes.	
36 and above	Exceeds 30%	Extreme	Very stressful for most people.	
			Postpone to cooler conditions (or cooler part of the	
			day) or cancel.	

Wet Bulb Globe Temperature

Further guidance might be gained from the Wet Bulb Globe Temperature (WBGT) index. The WBGT is particularly useful for hot, humid days.

WBGT	Risk of heat illness	Recommended management for sports activities	
Less than 20	Low	Heat illness can occur in running. Caution over-motivation.	
21 – 25	Moderate - High	Increase vigilance. Caution over-motivation. Moderate early pre-season training Take more breaks.	
26 – 29	High – Very High	Limit intensity, take more breaks. Limit duration to less than 60 minutes per session.	
30 and above	Extreme	Consider postponement to a cooler part of the day or cancellation	

Check local weather conditions

The Bureau of Meteorology provides information on local weather conditions and observations including temperature, UV, wind speed and thermal comfort. Weather warning, including heatwaves, fire and storms can be viewed at bom.gov.au and should be considered as part of any club's safety plan. The provision of safety personnel able to identify, treat and manage heat illness is also an important part of this planning.

3	UV heat exposure and heat illness checklist
---	---

	Where possible, training, events and competitions are scheduled to minimise exposure to UV levels of three and above and avoid high temperatures.
	Cancellation of training, events or competition occurs when high-risk conditions are forecast.
\boxtimes	VSBL Heat Policy <u>HERE</u>
	e it is not possible to avoid peak UV and heat periods, the following interim steps are taken to minimise sk of overexposure to UV and heat illness.
	The duration of the match, warm-up, training or other activity is reduced and has limited intensity where applicable.
	Scheduling of activities to start earlier in the morning or later in the evening thus avoiding high- risk UV exposure times.
	Increase and/or extend the number of rest breaks and opportunities to seek shade and refreshments.
	Rotate officials out of the sun more frequently than usual. Be aware that older volunteers may be at an increased risk of heat illness.
	Increase the number of player rotations within a game.
	Hold activity at an alternative venue or reschedule wherever possible.
	Officials, coaches and senior members are to act as role models by wearing sun-protective clothing and hats, applying sunscreen and seeking shade wherever possible.

	Conduct an assessment of the existing shade available at outdoor venues. Identify whether the shade is appropriate or needs improvement.
	Utilise shade available from buildings, trees and other structures where possible. These can be used for player interchanges, between activities or as spectator areas. Ensure that these identified areas provide shade when games are played.
	Provide areas of rest in shaded areas for spectators and individuals when not actively participating or playing. This may include the interchange bench or off-diamond officials.
	Where necessary, interchange and presentation ceremony areas are to be protected by shade.
	Participants and officials rotate to cooler, shaded areas.
	Ensure when there is insufficient natural or built shade, temporary shade structures are provided and/or participants and spectators notified to bring their own temporary shade structures, such as umbrellas.
Cloth	ning
	Officials, volunteers and players must ensure that when off-diamond that sun protection is addressed, such as wearing a wide brimmed hat and sunglasses.
	Ensure that playing uniform and other parts of clothing are loose fitting and lightweight where possible.
	Participants without appropriate protective clothing should not be permitted to spend extended periods exposed to UV levels of three and above.
Suns	creen
	SPF30+ broad spectrum, water resistant sunscreen is promoted and/or provided to participants.
	Sunscreen is stored below 30oC and replaced once it is past the use-by-date.
	Participants are encouraged to apply sunscreen 20 minutes before training or playing and reapply every two hours.
Airflo	ow
	Airflow is maximised at training and competition venues, specifically indoors (eg doors and windows are opened or marquee walls removed).
	Spaces with air-conditioning or fans are made available in high risk conditions.
Hydr	ation
	All participants (including players, coaches and officials) are required to bring their own clearly labelled drink bottle.
	Cool clean water is available to all participants.
	All those involved are aware that they need to be well hydrated before participating in physical activity.
	Flexible drink breaks are provided in hot or humid conditions.
	Individuals are permitted to drink between breaks at their own discretion.

	The BV adverse weather guidelines are displayed in a prominent location (eg website or noticeboard). UV exposure and heat illness guide
	The times when UV protection is required (as indicated by a newspaper and/or the SunSmart website) and the heat illness chart is displayed in a prominent location.
	Links to SunSmart <u>sunsmart.com.au</u> and Smartplay <u>smartplay.com.au</u> are included on our website.
	UV protection and heat illness prevention messages are included in event programs and newsletters.
	Clubs or Officials are responsible for identifying what the UV level is going to be and remind athletes at the training or match the precautions to be taken.
First .	Aid
	The first aid kit includes a supply of SPF30+ broad spectrum, water resistant sunscreen.
	Trained first aid personnel or sports trainers are present at training and events to manage sunburn and heat illness.
	Contact details of the closest medical assistance are displayed in a prominent location (eg, first aid room or canteen).
	Any participant feeling discomfort or distress is monitored and evaluated by trained safety personnel.
	Ice, fans and water spray bottles are available as cooling aids.
Indiv	idual risk factors
	Information on participants' medical conditions and medical history is collected (according to privacy legislation).
	A record of injuries (including heat illness) is kept.
	Age, fitness, skin characteristics, acclimatisation, gender and medical conditions are considered when making decisions.
	If in doubt, an individual is advised to see a medical professional for clearance to participate.

4 Air quality

Smoke and poor air quality can present a health risk to both recreational and high performance athletes. Current health status and previous medical conditions can play a major factor on how bit an impact air quality can have on an individual. Current public health advice is aimed at high-risk groups, including people over 65, children 14 years and younger, pregnant women and those with existing heart or lung conditions.

Athletes involved in high performance sport can also be at increased risk while performing high intensity prolonged exercise outdoors and additional caution should be taken.

During exercise, respiratory rate and volume increases, this in turn increases the total airway exposure to pollutants. Because of the dangers associated with poor air quality, Baseball Victoria adopts the guidelines set by the Australian Institute of Sport.

These guidelines can be found here: https://ais.gov.au/position_statements#smoke_pollution_and_exercise.

5 Hail

All hailstorms present some risk to players in an open playing field, and the size and intensity of the storm can change dramatically in a short period of time.

All play should be suspended during hailstorms so that players and officials can seek suitable shelter. It is important to also be aware of any significant temperature drop, rainfall and increased wind that may be associated with the hail conditions.

Play should be restarted after the hail has stopped failing, with particular attention being given to the amount of ice on the playing surface (size and thickness of layer). In some cases, it may be unsafe to resume play immediately due to an ice covered surface. Deferral of the restart to allow melting (or manual clearing in parts) should be considered in extreme circumstances.

6 Rain

If the Umpire considers that play is unsafe due to rain, the Umpire shall stop play immediately.

Should the Umpire consider that there is a reasonable expectation that the rain will ease to the point that play is safe within sufficient time to achieve a Legal Game, the Umpire is to suspend play and periodically assess the conditions. If the Umpire determines it is safe to do so, play will resume.

Should the Umpire consider that there is not a reasonable expectation that the rain will ease within sufficient time to achieve a Legal Game, the Umpire is to 'Call' the game.

If a game is called under this Playing Condition, the game shall be deemed to be a no game.

7 Lightning

Lightning is the visible part of an electrical discharge. Thunder is the resulting sound from the rapid expansion of the air after this electrical discharge. Sound follows light at 0.34 km/sec. Check the forecast and watch the sky. Darkening skies, flashes or lightning, or increasing wind may indicate an approaching storm.

LIGHTNING SAFETY TIPS

Use the 30/30 Lightning Rule.

If the time between the lightning flash and the thunder sound is less than **30 SECONDS** then play should be suspended, and not resumed until **30 MINUTES** after the last thunder (30 seconds relates to 10 kilometers away).

- 1. Find safe shelter.
- 2. Sturdy buildings are the safest place to be during lightning storms.
- 3. Avoid sheds, picnic shelters, and metal coaching boxes.
- 4. Staying in a car with windows closed also offers some protection.

Note: Thunder is not usually heard 24-32 kilometers from the lightning strike.

8 Chill

Extreme weather can produce two chill risks: the absolute air temperature and the wind chill factor. Of these, wind chill in winter sports is the more significant risk.

Apparent Temperature (AT) is an adjustment to the actual air (ambient) temperature based on the perceived

effect of the extra elements such as humidity and wind. AT is valid over a wide range of temperatures, and it includes the chilling effect of the wind at lower temperatures.

Minus 2°C (AT) is the point where play should be suspended for wind chill factor.

When using the AT as a wind chill indicator, the model assumes an appropriately dressed adult for those conditions. If clothing were to get wet, the cooling effect would be greater than that predicted by the model, and the chance of hypothermia would be greater than indicated by the AT. In wet, windy conditions, someone wearing inadequate clothing can become hypothermic in quite mild conditions. The risk also increases for children.

9 Useful Resources

UV Exposure and Heat Illness Guide

Hot Weather Guidelines: for sporting clubs and associations and the physically active

Beat the Heat: playing and exercising safely in hot weather

SunSmart

Smartplay

Bureau of Meteorology

APPENDIX A - EXTRACT FROM BASEBALL VICTORIA PLAYING CONDITIONS

Extreme Weather

If there is an adverse weather forecast (lightning, wet weather or extreme heat) for the scheduled playing day:

- i) In advance, Competition Manager may consider a full or partial cancellation (i.e. Competition Manager may choose to cancel some or all divisions) in advance and where applicable will seek necessary guidance from the Victorian Director of Umpiring, Bureau of Meteorology and/or selected medical and legal practitioners. Should this occur, all clubs will be notified via email or text message to Club Secretaries, social media and the competition website.
- ii) On Game Day, if Competition Manager has not made a decision in advance or advised for players to attend for play, decisions regarding play shall be in the hands of the home Club Secretary (or his/her nominee as per Rule of Baseball 3.10(a)).
- iii) During a Game, once the game has commenced, decisions will then be made by the umpires.

Heat Affected Games

- a) It shall be the responsibility of the home Club Secretary (or his/her nominee) to monitor on a half-hourly basis. Should the current temperature reach 38° Celsius for seniors, women and masters competitions or 34° Celsius for junior competitions, play shall be suspended immediately. The temperature shall be monitored during this time every 15 minutes. Play shall not resume until the temperature falls below 38° Celsius for senior competitions or 34° Celsius for junior competitions.
- b) Junior players participating in any senior competition shall be subject to the conditions of that competition.
- c) By viewing the Bureau of Meteorology website http://www.bom.gov.au/vic/forecasts/melbourne.shtml, the following areas are stated. Games played at the home of a listed club are to adhere to temperature the nominated area:

Melbourne Fitzroy, Malvern, Melbourne, Melbourne University, Northcote, North Ba Ormond Glenhuntly, Pivot City, Port Melbourne, St Kilda, Westgarth, Gle	
Geelong Geelong	
Essendon Airport	Essendon, NW Titans, North Coburg Rebels
Yarra Glen	Croydon & Ringwood
Frankston	Frankston, Bonbeach, Boneo, Chelsea, Dandenong, Mordialloc, Mornington
Moorabbin Airport	Cheltenham, Dingley, Moorabbin, Sandringham, Springvale, Monash University
Ferny Creek	Knox & Upwey FTG
Cranbourne	Berwick & Pakenham
Laverton Altona, Newport, Footscray, Sunshine Werribee, & Williamstown	
Scoresby	Blackburn, Forest Hill, Heathmont, Mulgrave, SE Warriors & Waverley
Watsonia Bundoora, Diamond Creek, Doncaster, Greenhills Montmorency, Gre La Trobe University, North Balwyn, Preston, Research LP, Watsonia,	

d) For Regional areas, a check of weather conditions should be conducted via the Bureau of Meteorology website through the "Latest Weather Observations for Victoria" page HERE

Notwithstanding the above, the umpire/s shall have the powers to abandon or suspend play at any time at their discretion.

No person is forced by Baseball Victoria to participate in any match and Clubs shall place no pressure on any participant if he/she considers withdrawing from any part of a match for health reason.

APPENDIX B - AIR QUALITY INDEX

Air Quality Index (AQI) is a general term given when evaluating the air quality at a specific location, overa 24 hour period. This monitors a number of pollutants:

- Fine and course particulate matter (PM2.5 & PM10)
- Carbon Monoxide
- Ozone

AQI standardises the information across these three categories, making air quality easier to divulge viaa scale system.

PM2.5 in μg/m3

PM2.5 are very small particles usually found in smoke. They have a diameter of 2.5 micrometers (0.0025mm) or smaller. PM2.5 particles are a common air pollutant. Breathing in PM2.5 particles can have negative effects on your health. PM2.5 particles are small enough for you to breathe in deeply intoyour lungs. Sometimes particles can enter your bloodstream.

PM2.5 is measured at all air quality measuring sites in Australia. The other pollutants that make up theAQI are not measured everywhere in Australia. This means that PM2.5 has the relevance for providingstandardised guidelines for all of Australia.

PM2.5 is also by far the most important air pollutant in smoky conditions.

Monitoring the PM2.5 levels at a specific location

There are three ways to get information on PM2.5 concentration levels (measured in $\mu g/m^{30}$):

- 1. State and Territory air quality monitoring websites (hourly measures of PM2.5 concentration)
- 2. The AirRater App (or other similar App providing real time PM2.5 in $\mu g/m^3$)
- 3. A handheld portable device that measures PM2.5 in real time (if the club/competition has theresource available)

For clubs and competitions wishing to make decisions about whether it is safe to participate now, or over the next couple of hours, having real-time or hourly averages of PM2.5 is important.

Table 1. GUIDELINES FOR EXERCISE IN SMOKE AFFECTED ENVIRONMENTS – Australian Institute of Sport

Exercise • General Recommendations Category		• Exercise-specific Recommendations μ	
Good to exercise	Its' a good day to be outside	All forms of exercise are encouraged	<25
(Caution for those who are sensitive to air pollution) Moderate	 The air is probably smoky Sensitive groups may experience symptoms like coughing or shortness of breath If you are sensitive to air pollution, spend less time outside in the smoke or dust and follow your treatment plan If you are worried about your symptoms, seek medical advice 	running) • Most individuals will tolerate	25–50
Poor conditions forexercise	 The air is probably very smoky Sensitive groups and/or others may experience symptoms like coughing or shortness of breath If you are sensitive to air pollution, spend less time outside in the smoke or dust and follow your treatment plan If you are worried about your symptoms, seek medical advice. Seek urgent medical help if anyone has trouble breathing or tightness in the chest. Call 000 for an ambulance 	 Consider reducing prolonged high intensity endurance activities (eg. rowing, cycling, long-distance running) If you are sensitive to air pollution, avoid prolonged high intensity endurance exercise (eg. rowing, cycling, long-distance running) or move it indoors Intermittent exercise (eg. Hockey) may still be well-tolerated but athletes should be alert to symptoms Increase rest-to-activity ratio for intermittent exercise 	51–100
Very poor conditionsfor exercise	 The air is probably very smoky Sensitive groups and/or others may experience symptoms like coughing or shortness of breath If you are sensitive to air pollution, spend less time outside in the smoke or dust and follow your treatment plan If you are worried about your symptoms, seek medical advice Seek urgent medical help if anyone has trouble breathing or tightness in the chest. Call 000 for an ambulance 	 High intensity endurance activities (eg. rowing, cycling, long-distance running) should be avoided or moved indoors Intermittent exercise (eg. Hockey) may still be well tolerated but athletes should be alert to symptoms Increase rest-to-activity ratio for intermittent exercise Any individual may be affected by exercising in smoky air at these levels. If symptoms develop, cease exercise and move indoors 	101 –150

- The air is probably extremely smoky.
 Everyone will be at risk of experiencing symptoms like coughing or shortness of breath
- Listen to your local emergency radio station or visit your State Emergency Agency for advice
- Stay indoors away from smoke and dust
- If you are sensitive to air pollution, follow your treatment plan. Close your windows and doors to keep smoke and dust out of your home
- If you think the air in your home is uncomfortable, consider going to an airconditioned building like a library or shopping centre for a break if it's safe to do so
- If you are worried about your symptoms, seek medical advice
- Seek urgent medical help if anyone has trouble breathing or tightness in the chest. Call 000 for an ambulance

- Most individuals should avoid physical activity outdoors
- Where there is an intention to play organised high level sport and there are medical staff on site to advise, these levels of pollution should trigger a discussion between medical staff and officials about the advisability or otherwise of proceeding with the event

>150

Activity levels based on visibility, air health category and smoke sensitivity

The following visibility guidelines should be considered in conjunction with the information from the above table. These visibility guidelines are based on those of the Victorian Environment Protection Authority.

Activity levels based on visibility, air health category and smoke sensitivity

The following visibility guidelines should be considered in conjunction with the information from the above table. These visibility guidelines are based on those of the Victorian Environment Protection Authority.

Table 2. ACTIVITY LEVELS BASED ON VISIBILITY - Environment Protection Authority

Visible landmark	Air health category	Activity levels – people sensitive to smoke	Activity levels— everyone else
About 20km	Good	It's a good day to be outside	It's a good day to be outside
About 10km	Moderate	It's okay to be outside but watch for changes in air quality around you	It's okay to be outside but watch for changes in air quality around you
About 5km	Poor	Reduce prolonged or heavy physical activity	Normal activity, but be alerted to changes in air
About1.5km	Very poor	Avoid physical activity outdoors	Reduce prolonged or heavy physical activity
Less than1.5km	Hazardous	If you can stay indoors and keep physical activity levels as low as possible	Avoid all physical activity outdoors

Additional information:

Consecutive days of exposure to polluted air can have accumulative effect, lowering an athlete's threshold for symptoms. This should be considered if your region has been exposed to increased smoke for several days in succession.

All athletes who suffer from asthma should have an updated asthma management plan and consult their doctor prior to exercising in smoke-affected environments.

Recent respiratory infection increases the risk for development of smoke-related symptoms, even in non-asthmatics