



ANZCOR Guideline 9.2.13 – First Aid Recognition and Management of Presyncope

Summary

To whom does this guideline apply?

This guideline applies to adults and children.

Who is the audience for this guideline?

This guideline is for use by bystanders, first aiders and first aid training providers.

Summary of Recommendations

The Australian and New Zealand Committee on Resuscitation (ANZCOR) makes the following recommendations:

1. Manage presyncope by lying the person down if safe to do so [Good Practice Statement].
2. ANZCOR recommends to use physical counter-pressure manoeuvres (as detailed below) to relieve symptoms [strong recommendation, low and very low certainty of evidence].¹⁻⁷
3. ANZCOR suggests to use lower body physical counter-pressure manoeuvres (as detailed below) to relieve symptoms [weak recommendation, very low certainty of evidence].^{1,2,5,8}
4. Raising legs may help temporarily relieve the symptoms of presyncope [Good Practice Statement].⁹
5. If the symptoms and signs do not settle with the above measures there may be a serious underlying condition. Send for an ambulance.
6. Check for injuries if a fall has occurred.

Abbreviations

| Abbreviation | Meaning/Phrase |
|--------------|---|
| ANZCOR | Australian and New Zealand Committee on Resuscitation |
| CoSTR | Consensus on Science with Treatment Recommendations |
| ILCOR | International Liaison Committee on Resuscitation |

Guideline

1 Introduction

Presyncope is a common condition often described as “feeling faint,” “weak” or “dizzy.” It is often accompanied by loss or greying of vision, generalised weakness, and nausea.

Many conditions can cause presyncope but the unifying feature is the blood pressure drops below the level needed for normal function of the brain. Presyncope can occur from a vaso-vagal episode (sometimes called a simple faint), where the heart rate is slowed by the nerve supply to the heart and the blood vessels dilate causing low blood pressure. This can be the body’s response to intense pain or emotional stress. Presyncope can also be caused by sinister conditions such as heart disease, drug side-effects, blood loss, dehydration, heat stress, or severe infection/sepsis.

A vaso-vagal episode is usually self-limiting, particularly if the person lies down. If the signs and symptoms persist or recur, they may denote serious illness. The person should be managed as for any serious illness (refer to ANZCOR Guideline 9.2.12)

2 Recognition

- Symptoms and signs may include:
 - feeling faint
 - feeling lightheaded
 - feeling dizzy
 - nausea
 - greying, tunnel vision or loss of vision
 - the person may appear pale (a change in colour).

- The following observations may help if the first aider is trained to take the observations and has the equipment needed:
 - The pulse may be slow or fast depending on the cause of the presyncope.
 - The blood pressure is low (although the individual normal value is variable).

3 Management

- If the person is unresponsive and not breathing normally, commence resuscitation, follow the Basic Life Support Flowchart (refer to ANZCOR Guideline 8).
- Lie the person flat if safe to do so.
- Use counter-pressure manoeuvres. These manoeuvres include tensing muscles of the legs, arms, abdomen or neck, for example leg tensing, crossing, squatting, hand gripping and abdominal tensing.
- Raise the legs above the heart if safe to do so. This may produce a temporary rise in blood pressure.
- Treat any injuries found.
- If the symptoms and signs persist, send for an ambulance.
- Handover any observations to the next level of care.

Further Reading

ANZCOR Guideline 8 Cardiopulmonary Resuscitation

References

1. Jensen JL CP, Meyran D, Ng KC, Ohshimo S, Singletary EM, Zideman DA, Epstein JL, Bendall J, Berry DC, Carlson JN, Chang WT, Charlton NP, Hood NA, Markenson DS, Woodin JA, Swain JM, Sakamoto T, Lang E, on behalf of the International Liaison Committee on Resuscitation (ILCOR) First Aid Task Force and Pediatric Task Force. First Aid Interventions for Presyncope Consensus on Science with Treatment Recommendations [Internet] Brussels, Belgium: International Liaison Committee on Resuscitation (ILCOR) First Aid and Pediatric Task Forces, 2019 Jan 20. Available from: <http://ilcor.org> Accessed 22 Nov 21. 2019.
2. Kim Dockx BA, Emmy De Buck, Pascal Vranckx, Philippe Vandekerckhove. Physical manoeuvres as a preventive intervention to manage vasovagal syncope: A systematic review. *PLOS One*. 2019;14:1-14. doi: <https://dx.doi.org/10.1371/journal.pone.0212012>
3. Jan L. Jensen AM, Shinichiro Ohshimo, MD, PhD, Pascal Cassan, MD, Daniel Meyran, MD, Jennifer Greene, ACP MSc(c), Kee Chong Ng, MBBS, NMED, FAMS, Eunice Singletary, MD, FACEP, David Zideman, LVO, MBBS, FRCA. Immediate Interventions for Presyncope of Vasovagal or Orthostatic Origin: A Systematic Review. *Prehospital Emergency Care* 2020;24 (1):64-76. doi: <https://dx.doi.org/10.1080/10903127.2019.1605431>
4. Logan A, 2,3; Freeman, Jennifer1,3; Pooler, Jillian4; Kent, Bridie3,5; Gunn, Hilary1; Billings, Sarah6; Cork, Emma7; Marsden, Jonathan. Effectiveness of non-pharmacological interventions to treat orthostatic hypotension in elderly people and people with a neurological condition: a systematic review. *JBI Evidence Synthesis*. 2020;18 (12):2556-2617. doi: <https://dx.doi.org/10.11124/JBISRIR-D-18-00005>
5. Jasmeet Soar IM, Myra H Wyckoff, Theresa M Olasveengen, Eunice M Singletary, Robert Greif, Richard Aickin, Farhan Bhanji, Michael W Donnino, Mary E Mancini, Jonathan P Wyllie, David Zideman, Lars W Andersen et al. 2019 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations: Summary From the Basic Life Support; Advanced Life Support; Pediatric Life Support; Neonatal Life Support; Education, Implementation, and Teams; and First Aid Task Forces. *Circulation*. 2019;140 (24):e826-e880.
6. Amanda Thijsen CNG, Tanya E. Davison, Justine O'Donovan, Barbara Bell, Barbara Masser. Does using applied muscle tension at strategic time points during donation reduce phlebotomist- and donor-reported vasovagal reaction rates? A three-armed randomized controlled trial. *Transfusion*. 2018;58 (10):2352-2359. doi: <https://dx.doi.org/10.1111/trf.14940>
7. Cong Wang LC, Chenyu Sun, Yan Zhang, Can Cao, Yuanyuan Ma, Wenwen Shi. Prevention of Blood Donation-related Vasovagal Response by Applied Muscle Tension: a Meta-analysis. *Journal of International Medical Research*. 2022;50 (9). doi: <https://dx.doi.org/10.1177/03000605221121958>
8. Laura McIntyre-Patton SW, Deb Graef, Laura Woessner, Rachel Baker. Randomized Trial Evaluating the Effectiveness of a Leg Crossing and Muscle Tensing Technique on Decreasing Vasovagal Symptoms Among Pediatric and Young Adult Patients Undergoing Peripheral IV Catheter Insertion. *Journal of Pediatric Nursing*. 2018;38:53-56. doi: <https://dx.doi.org/10.1016/j.pedn.2017.09.012>

9. Zideman DA, Singletary, E. M., De Buck, E., et al. Part 9: First aid: 2015 International Consensus on First Aid Science with Treatment Recommendations. *Resuscitation*. 2015;95:e225.

About this Guideline

| | |
|------------------------------|--|
| Search date/s | November 2018 and February 2023 |
| Question/PICO: | <p>Population: Adults and children with signs and symptoms of faintness or presyncope of suspected vasovagal or orthostatic origin</p> <p>Intervention: interventions such as physical counter-pressure manoeuvres (sic), body positioning, hydration or other</p> <p>Comparison: no intervention or each other</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • Abortion of Syncope <ul style="list-style-type: none"> ○ (high number considered beneficial) ○ (critical) • Injuries or adverse events <ul style="list-style-type: none"> ○ (low number considered beneficial) ○ (critical) • Symptom improvement <ul style="list-style-type: none"> ○ (high number considered beneficial) ○ (important) • Change in heart rate <ul style="list-style-type: none"> ○ (increase considered beneficial for VVS) ○ (important) • Change in systolic blood pressure <ul style="list-style-type: none"> ○ (increase considered beneficial) ○ (important) • Change in diastolic blood pressure <ul style="list-style-type: none"> ○ (increase considered beneficial) ○ (important) |
| Method: | <p>Systematic review First Aid Interventions for Presyncope</p> <ol style="list-style-type: none"> 1. ILCOR CoSTR Feb 19. Search strategy see worksheet 2. Evidence update using same search strategy Feb 23 |
| Primary reviewers: | Finlay Macneil |
| Worksheet | https://costr.ilcor.org/document/first-aid-interventions-for-presyncope?status=final and Feb 23 EvUp worksheet at Worksheet to support Guideline 9.2.13 |
| Approved: | March 2023 |
| Guideline superseded: | New guideline |