



Topic Expert Group: Follow-up and continuing care

Healthy lifestyle and cardiovascular risk factors

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Target group

Children and adults born very preterm or those with risk factors (see preamble TEG Follow-up & continuing care), parents, and families

User group

Healthcare professionals, neonatal units, hospitals, follow-up teams, and health services

Statement of standard

Key cardiometabolic risk factors (in particular blood pressure, abdominal obesity and physical inactivity) are monitored from childhood to adult life.

Rationale

Children and adults born very preterm are likely to be at increased risk of common late-life diseases, such as coronary heart disease, high blood pressure, stroke, type 2 diabetes, and impaired glucose regulation which jointly are referred to as “cardiometabolic disease”. (1–5) Some studies also point to increased abdominal fat, although evidence is less certain. (6) Importantly, those born preterm seem to undertake less physical activity (7) and are less fit (8), comprising a potential target for secondary prevention.

In addition to cardiometabolic risk factors, children and adults may have reduced lung function (see separate standard) (9) and reduced bone mineral density. (10) Increasing physical activity and fitness carries benefits also in terms of lung and bone health.

These risks highlight the need of promotion of healthy lifestyle and vigilance in detecting individuals among whom specific risk factors attain levels that may warrant intervention. Promotion of healthy lifestyle is likely to benefit the whole family.

There are no published studies assessing the efficacy of preventive measures specifically in children born preterm. However, there are evidence-based guidelines on healthy lifestyle for the general population and on detection of high-risk individuals and prevention based on individual risk factors.

Long-term outcomes in children and adults born preterm are currently under intensive research and have been highlighted as an important research topic by agencies such as the US National Institutes of Health. (11) This research is likely to provide new scientific evidence to support the recommendations.

Many of the health benefits considered in this recommendation are best achieved through “health in all policies” – i.e. measures elsewhere than in the health sector (e.g. day-care, education, food industry, community planning). (12)



Benefits

Short-term benefits

N/A

Long-term benefits

- Early identification of individuals in need of more intensive medical follow-up or intervention (consensus)
- Potentially better cognitive development and peer relationships (consensus)
- Potentially reduced risk of cardiometabolic disease in later life (consensus)
- Potentially reduced risk of other non-communicable diseases (e.g. pulmonary disease) (consensus)

Components of the standard

Component	Grading of evidence	Indicator of meeting the standard
For parents and family as well as children and adults born preterm		
1. Parents and family as well as children and adults born preterm are informed by healthcare professionals about principles of healthy lifestyle, such as prevailing nutrition and physical activity recommendations, and about cardiometabolic risk factors and their follow-up in the healthcare system. (1–5)	A (High quality) B (High quality)	Patient information sheet
For healthcare professionals		
2. A guideline on detecting cardiometabolic risk factors is adhered to by all healthcare professionals (follow-up clinics, primary healthcare) encountering children and adults born preterm and appropriate advice and interventions are ensured, including national/European/International population guidelines. (13–16)	A (High quality) B (High quality)	Guideline
3. Blood pressure is measured every 2 years after 3 years of age for all children and those with high blood pressure are referred to specialist evaluation. (17)	A (Moderate quality) B (High quality)	Guideline
4. Physical activity, diet and other aspects of healthy lifestyle are assessed and adequate support to promote healthy lifestyle as necessary is provided. (13)	A (Moderate quality) B (High quality)	Guideline



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| 5. Training on the assessment of cardiometabolic risk factors in preterm born children and adults and on healthy lifestyle is attended by all responsible healthcare professionals. | B (High quality) | Training documentation |
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For neonatal unit, hospital, and follow-up team

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| 6. A guideline on the assessment of cardiometabolic risk factors in children and adults born preterm is available and regularly updated. | B (High quality) | Guideline |
| 7. Information on healthy lifestyle and cardiometabolic risk factors is included in discharge planning and follow-up visits and communicated to primary care providers. (1–5) | A (High quality)
B (High quality) | Patient information sheet |
| 8. Training on the assessment of cardiometabolic risk factors in preterm born children and adults and on healthy lifestyle is ensured. | B (High quality) | Training documentation |

For health service

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| 9. A national guideline on the assessment of cardiometabolic risk factors including children and adults born preterm is available and regularly updated. | B (High quality) | Guideline |
| 10. Benchmarking of neonatal units to include long-term measures of cardiometabolic health is ensured. (11,18) | B (Moderate quality) | Audit report |

Where to go – further development of care

Further development	Grading of evidence
For parents and family N/A	
For healthcare professionals N/A	
For neonatal unit, hospital and follow-up team N/A	
For health service	
<ul style="list-style-type: none"> • Develop evidence-base for preventive strategies. 	A (Low quality)



Getting started

Initial steps

For parents and family

- Parents and family, as well as children and adults born preterm are informed by healthcare professionals about principles of healthy lifestyle, such as prevailing nutrition and physical activity recommendations.

For healthcare professionals

- Incorporate healthy lifestyle counselling in the training of neonatal follow-up healthcare professionals.
- Attend training on the assessment of cardiometabolic risk factors in preterm born children and adults and on healthy lifestyle.

For neonatal unit, hospital, and follow-up team

- Develop written information material on cardiometabolic risk factors and healthy lifestyle for parents and children and adults born preterm.
- Develop and implement a guideline on the assessment of cardiometabolic risk factors in children and adults born preterm.
- Support healthcare professionals to participate in training on the assessment of cardiometabolic risk factors in preterm born children and adults and on healthy lifestyle.

For health service

- Develop and implement a national guideline on the assessment of cardiometabolic risk factors in children and adults, including those born preterm.

Source

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Lifecycle

5 years/next revision: 2023

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