CLINICAL QUICK-READ FOR HEALTH CARE PROVIDERS

Preconception Health: Nutrition, Lifestyle and Age

Key Messages

- Nutrition, lifestyle behaviours, and age influence fertility, pregnancy outcomes, and long-term child health.
- Early fetal development occurs before pregnancy recognition, making preconception health optimization essential.
- Diet quality, micronutrient intake, physical activity, sleep and metabolic health all influence reproductive outcomes.
- Counselling should focus on supportive health promotion rather than weight alone.
- Age-related reproductive considerations should be discussed proactively to support informed pregnancy planning.

CORE CLINICAL PRINCIPLES

Preconception nutrition and lifestyle care should emphasize:

- Health promotion and preventive care
- Weight-inclusive, non-stigmatizing counselling
- Early micronutrient supplementation
- Support for healthy lifestyle behaviours and sustainable change
- Counselling about reproductive timing
- Shared decision-making

Practice Tip

Focus on improving diet quality, physical activity, sleep, and stress management, which may improve metabolic health and fertility even without major weight change.

Routine Screening for Nutrition and Lifestyle

Nutrition and lifestyle assessment should be incorporated into routine visits for individuals of reproductive age.

Screen for:

- Dietary patterns and food access
- Micronutrient supplementation
- BMI and metabolic risk
- Physical activity levels
- Sleep patterns
- Stress levels
- Age-related reproductive considerations

Screening should be:

- Routine
- Non-judgmental
- Repeated over time
- Independent of pregnancy intention

CLINICAL QUICK-READ BY TOPIC

Micronutrient Optimization

Adequate micronutrient intake before pregnancy supports:

- Early fetal development
- Placental development
- Maternal health

Key nutrients such as folic acid and iron influence early embryonic development.

What to Assess Before Pregnancy

- Micronutrient supplementation
- Diet quality
- Iron status
- Risk of vitamin D deficiency

Priority Preconception Actions

- Recommend folic acid supplementation prior to conception
- Screen for iron deficiency when indicated
- Assess vitamin D risk and supplement if needed
- Provide dietary counselling when needed

Clinical Considerations

Nutritional deficiencies may affect early fetal development before pregnancy recognition.

Clinical Pearl

Micronutrient status before conception influences early fetal development.

Weight and Metabolic Health

Body weight and metabolic health influence:

- Fertility
- Pregnancy complications
- Cardiometabolic risk during pregnancy

Both high and low BMI are associated with adverse pregnancy outcomes.

What to Assess Before Pregnancy

- BMI
- Metabolic risk factors
- Diet quality
- Physical activity patterns

Priority Preconception Actions

- Assess BMI and metabolic risk
- Encourage healthy nutrition and physical activity
- Screen for diabetes risk factors
- Provide supportive lifestyle counselling

Clinical Considerations

Lifestyle changes often require time and support to achieve sustainable improvements.

Clinical Pearl

Improving metabolic health before pregnancy can reduce pregnancy complications.

Physical Activity and Lifestyle

Healthy lifestyle behaviours support:

- Cardiometabolic health
- Fertility
- Pregnancy outcomes

Sedentary behaviour and poor sleep patterns may negatively affect reproductive health.

What to Assess Before Pregnancy

- Physical activity levels
- Sedentary behaviour
- Sleep patterns
- Stress levels

Priority Preconception Actions

Encourage:

- Regular physical activity
- Balanced nutrition
- Adequate sleep
- Stress management
- Reduced sedentary time

Clinical Considerations

Behaviour change strategies should be individualized and supportive.

Clinical Pearl

Regular physical activity improves cardiovascular health and may support fertility.

Age and Reproductive Health

Age influences fertility, pregnancy risks, and genetic outcomes.

Delayed childbearing may increase the risk of:

- Infertility
- Pregnancy complications
- Chromosomal abnormalities

What to Assess Before Pregnancy

- Maternal age and reproductive goals
- Fertility concerns
- Genetic risk considerations
- Partner health

Priority Preconception Actions

- Provide anticipatory counselling about reproductive timelines
- Discuss fertility and pregnancy risks
- Review genetic screening options when appropriate
- Include partners when appropriate in reproductive health discussions

Clinical Considerations

Reproductive decision-making should be informed and patient-centred.

Clinical Pearl

Discussing reproductive timelines supports informed pregnancy planning.

Equity Considerations: Avoid Weight Stigma

Weight stigma can reduce patient engagement and discourage individuals from seeking care.

Preconception counselling should emphasize:

- Health behaviours
- Supportive lifestyle changes
- Non-judgmental communication

Social Determinants of Health

Nutrition and lifestyle behaviours are influenced by social and structural factors.

Patients may face barriers including:

- Food insecurity
- Limited access to healthy foods
- Housing instability
- Financial constraints
- Limited access to safe spaces for physical activity

Connecting patients with community resources can improve preconception health outcomes.

Pregnancy Timing and Health Optimization

For individuals with metabolic risk factors or nutritional deficiencies, discussions about pregnancy timing may reduce risk.

Contraception counselling should:

- Support patient autonomy
- Avoid coercive framing
- Align with reproductive goals
- Emphasize health optimization before conception

Practical Actions During Routine Visits

Providers can support preconception health by:

- Asking about reproductive goals
- Assessing nutrition and dietary patterns
- Reviewing micronutrient supplementation
- Evaluating metabolic health
- Encouraging physical activity and healthy lifestyle behaviours
- Discussing reproductive timelines
- Screening for food insecurity
- Providing nutrition counselling
- Referring to dietitians when appropriate
- Arranging follow-up care

Small interventions delivered consistently across visits can significantly improve preconception health outcomes.

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