Pattern 6A: Primary Prevention/Risk Reduction for Cardiovascular/Pulmonary Disorders

Inclusion

The following examples of examination findings may support the inclusion of clients in this pattern:

Risk Factors or Consequences of Pathology/Pathophysiology (Disease, Disorder, or Condition)

- Diabetes
- Family history of heart disease
- Hypercholesterolemia or hyperlipidemia
- Hypertension
- Obesity
- Sedentary lifestyle
- Smoking

Impairments of Body Functions and Structures, Activity Limitations, or Participation Restrictions

- Decreased functional work capacity
- Decreased maximum aerobic capacity
- Dyspnea on exertion
- Sedentary work role

Examination

Read Physical Therapist Examination and Evaluation: Focus on Tests and Measures.

Tests and Measures for Pattern 6A
Tests and measures for this pattern may include those that characterize or quantify:

- Aerobic Capacity/Endurance
- Anthropometric Characteristics
- Circulation (Arterial, Venous, Lymphatic)
• Community, Social, and Civic Life
• Education Life
• Mental Functions
• Muscle Performance (Including Strength, Power, Endurance, and Length)
• Posture
• Self-Care and Domestic Life
• Ventilation and Respiration
• Work Life

Evaluation, Diagnosis, Prognosis (Including Plan of Care)

Read Principles of Physical Therapist Patient and Client Management.

Factors That May Require New Episode of Care or That May Modify Frequency of Visits/Duration of Care:

• Accessibility and availability of resources
• Adherence to the intervention program
• Age
• Anatomical and physiological changes related to growth and development
• Caregiver consistency or expertise
• Chronicity or severity of the current condition
• Cognitive status
• Comorbidities, complications, or secondary impairments
• Concurrent medical, surgical, and therapeutic interventions
• Decline in functional independence
• Level of impairment
• Level of physical function
• Living environment
• Multisite or multisystem involvement
• Nutritional status
• Overall health status
• Potential discharge destinations
• Premorbid conditions
• Probability of prolonged impairment, functional limitation, or disability
• Psychological and socioeconomic factors
• Psychomotor abilities
• Social support
• Stability of the condition
**Intervention**

Read **Intervention**.

The categories of interventions for this pattern are listed alphabetically, with patient or client instruction first:

- Patient or Client Instruction
- Functional Training in Self-Care and in Domestic, Education, Work, Community, Social, and Civic Life
- Motor Function Training
- Therapeutic Exercise

**Reexamination**

Read **Physical Therapist Examination and Evaluation: Focus on Tests and Measures**.

**Outcomes for Patients or Clients**

Read **Measurement and Outcomes**.

**Concluding an Episode of Care**

Read **Intervention**.
Pattern 6B: Impaired Aerobic Capacity/Endurance Associated With Deconditioning

Inclusion

The following examples of examination findings may support the inclusion of clients in this pattern:

Risk Factors or Consequences of Pathology/Pathophysiology (Disease, Disorder, or Condition)

- Acquired immune deficiency syndrome
- Cancer
- Cardiovascular disorders
- Chronic system failure
- Inactivity
- Multisystem impairments
- Musculoskeletal disorders
- Neuromuscular disorders
- Pulmonary disorders

Impairments of Body Functions and Structures, Activity Limitations, or Participation Restrictions

- Decreased endurance
- Increased cardiovascular response to low level work loads
- Increased perceived exertion with functional activities
- Increased pulmonary response to low level work loads
- Inability to perform routine work tasks due to shortness of breath
Exclusion or Multiple-Pattern Classification

The following examples of examination findings may support exclusion from this pattern or classification into additional patterns. Depending on the level of severity or complexity of the examination findings, the physical therapist may determine that the patient/client would be more appropriately managed through (1) classification in an entirely different pattern or (2) classification in both this and another pattern.

Findings That May Require Classification in a Different Pattern

- Chronic obstructive pulmonary disease with acute exacerbation
- Impairments associated with acute cardiovascular pump dysfunction (eg, myocardial infarction)

Findings That May Require Classification in Additional Patterns

- Diabetes with wound
- Peripheral vascular disease with non-healing ulcer

Examination

Read Physical Therapist Examination and Evaluation: Focus on Tests and Measures.

Tests and Measures for Pattern 6B
Tests and measures for this pattern may include those that characterize or quantify:

- Aerobic Capacity/Endurance
- Anthropometric Characteristics
- Assistive Technology
- Balance
- Circulation (Arterial, Venous, Lymphatic)
- Community, Social, and Civic Life
- Education Life
- Environmental Factors
- Gait
- Mental Functions
- Mobility (Including Locomotion)
- Motor Function
- Muscle Performance (Including Strength, Power, Endurance, and Length)
- Pain
- Posture
- Range of Motion
Evaluation, Diagnosis, Prognosis (Including Plan of Care)

Read Principles of Physical Therapist Patient and Client Management.

Factors That May Require New Episode of Care or That May Modify Frequency of Visits/Duration of Care:

- Accessibility and availability of resources
- Adherence to the intervention program
- Age
- Anatomical and physiological changes related to growth and development
- Caregiver consistency or expertise
- Chronicity or severity of the current condition
- Comorbidities, complications, or secondary impairments
- Concurrent medical, surgical, and therapeutic interventions
- Level of impairment of body functions and structures
- Level of independence in activity and participation
- Living environment
- Mental status
- Multisite or multisystem involvement
- Nutritional status
- Overall health status
- Potential destinations at conclusion of care
- Premorbid conditions
- Probability of prolonged impairment of body functions and structures and probability of activity limitations and participation restrictions
- Psychological and socioeconomic factors
- Psychomotor abilities
- Social support
- Stability of the condition
**Intervention**

Read *Intervention*.

The categories of interventions for this pattern are:

- Patient or Client Instruction
- Airway Clearance Techniques
- Functional Training in Self-Care and in Domestic, Education, Work, Community, Social, and Civic Life
- Motor Function Training
- Therapeutic Exercise

**Reexamination**

Read *Physical Therapist Examination and Evaluation: Focus on Tests and Measures*.

**Outcomes for Patients or Clients**

Read *Measurement and Outcomes*.

**Concluding an Episode of Care**

Read “Criteria for Concluding an Episode of Care” under *Intervention*.
Pattern 6C: Impaired Ventilation, Respiration/Gas Exchange, and Aerobic Capacity/Endurance Associated With Airway Clearance Dysfunction

Inclusion

The following examples of examination findings may support the inclusion of clients in this pattern:

Risk Factors or Consequences of Pathology/Pathophysiology (Disease, Disorder, or Condition)

- Acute lung disorders
- Acute or chronic oxygen dependency
- Bone marrow/stem cell transplants
- Cardiothoracic surgery
- Change in baseline breath sounds
- Change in baseline chest radiograph
- Chronic obstructive pulmonary disease (COPD)
- Frequent or recurring pulmonary infection
- Solid-organ transplants (eg, heart, lung, kidney)
- Tracheostomy or microtracheostomy

Impairments of Body Functions and Structures, Activity Limitations, or Participation Restrictions

- Dyspnea at rest or with exertion
- Impaired airway clearance
- Impaired cough
- Impaired gas exchange
- Impaired ventilatory forces and flow
- Impaired ventilatory volumes
- Inability to perform self-care due to dyspnea
- Inability to perform work tasks due to dyspnea
Exclusion or Multiple-Pattern Classification

The following examples of examination findings may support exclusion from this pattern or classification into additional patterns. Depending on the level of severity or complexity of the examination findings, the physical therapist may determine that the patient/client would be more appropriately managed through (1) classification in an entirely different pattern or (2) classification in both this and another pattern.

Findings That May Require Classification in a Different Pattern

- Neonate with respiratory failure
- Respiratory failure with mechanical ventilation

Findings That May Require Classification in Additional Patterns

- Chronic obstructive pulmonary disease with diabetes
- Impairments associated with acute cerebrovascular accident with aspiration pneumonia

Examination

Read Physical Therapist Examination and Evaluation: Focus on Tests and Measures.

Tests and Measures for Pattern 6C
Tests and measures for this pattern may include those that characterize or quantify:

- Aerobic Capacity/Endurance
- Anthropometric Characteristics
- Assistive Technology
- Circulation (Arterial, Venous, Lymphatic)
- Community, Social, and Civic Life
- Education Life
- Environmental Factors
- Integumentary Integrity
- Mental Functions
- Muscle Performance (Including Strength, Power, Endurance, and Length)
- Neuromotor Development and Sensory Processing
- Pain
- Posture
Evaluation, Diagnosis, Prognosis (Including Plan of Care)

Read Principles of Physical Therapist Patient and Client Management.

Factors That May Require New Episode of Care or That May Modify Frequency of Visits/Duration of Care:

- Accessibility and availability of resources
- Adherence to the intervention program
- Age
- Anatomical and physiological changes related to growth and development
- Caregiver consistency or expertise
- Chronicity or severity of the current condition
- Comorbidities, complications, or secondary impairments
- Concurrent medical, surgical, and therapeutic interventions
- Level of impairment of body functions and structures
- Level of independence in activity and participation
- Living environment
- Mental status
- Multisite or multisystem involvement
- Nutritional status
- Overall health status
- Potential destinations at conclusion of care
- Premorbid conditions
- Probability of prolonged impairment of body functions and structures and probability of activity limitations and participation restrictions
- Psychological and socioeconomic factors
- Psychomotor abilities
- Social support
- Stability of the condition
**Intervention**

Read **Intervention**.

The categories of interventions for this pattern are:

- Patient or Client Instruction
- Airway Clearance Techniques
- Functional Training in Self-Care and in Domestic, Education, Work, Community, Social, and Civic Life
- Manual Therapy Techniques
- Motor Function Training
- Therapeutic Exercise

**Reexamination**

Read **Physical Therapist Examination and Evaluation: Focus on Tests and Measures**.

**Outcomes for Patients or Clients**

Read **Measurement and Outcomes**.

**Concluding an Episode of Care**

Read “Criteria for Concluding an Episode of Care” under **Intervention**.
Pattern 6D: Impaired Aerobic Capacity/Endurance Associated With Cardiovascular Pump Dysfunction or Failure

Inclusion

The following examples of examination findings may support the inclusion of clients in this pattern:

Risk Factors or Consequences of Pathology/Pathophysiology (Disease, Disorder, or Condition)

- Angioplasty or atherectomy
- Atrioventricular block
- Cardiogenic shock
- Cardiomyopathy
- Cardiothoracic surgery
- Complex ventricular arrhythmias
- Complicated myocardial infarction (failure); uncomplicated myocardial infarction (dysfunction)
- Congenital cardiac anomalies
- Coronary artery disease
- Decrease in ejection fraction (EF) on exercise testing (EF of 30%-50% with dysfunction; <30% with failure)
- Diabetes
- Exercise-induced myocardial ischemia (1-2 mm ST segment depression with dysfunction; >2 mm ST segment with failure)
- Hypertensive heart disease
- Nonmalignant arrhythmias
- Valvular heart disease

Impairments of Body Functions and Structures, Activity Limitations, or Participation Restrictions

- Abnormal heart rate response to increased oxygen demand
- Abnormal pulmonary response to increased oxygen demand
- Decreased ability or the inability to perform activities of daily living (ADL) because of symptoms
• Change in baseline breath sounds with activity
• Flat or falling blood pressure response to increased oxygen demand (failure)
• Hypertensive blood pressure response to increased oxygen demand (dysfunction)
• Impaired aerobic capacity of ≤ 5 or 6 metabolic equivalents (METS) (dysfunction) or ≤ 4 or 5 METS (failure)
• Impaired gas exchange
• Inability or decreased ability to perform work roles because of symptoms
• Presence of or increase in cardiovascular symptoms in response to increased oxygen demand

Exclusion or Multiple-Pattern Classification

The following examples of examination findings may support exclusion from this pattern or classification into additional patterns. Depending on the level of severity or complexity of the examination findings, the physical therapist may determine that the patient/client would be more appropriately managed through (1) classification in an entirely different pattern or (2) classification in both this and another pattern.

Findings That May Require Classification in a Different Pattern

• Heart failure with respiratory failure
• Neonate with cardiovascular anomaly and respiratory failure

Findings That May Require Classification in Additional Patterns

• Airway clearance impairments with pericarditis status post chest trauma

Examination

Read Physical Therapist Examination and Evaluation: Focus on Tests and Measures.

Tests and Measures for Pattern 6D
Tests and measures for this pattern may include those that characterize or quantify:

• Aerobic Capacity/Endurance
• Anthropometric Characteristics
• Assistive Technology

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• Balance
• Circulation (Arterial, Venous, Lymphatic)
• Community, Social, and Civic Life
• Education Life
• Environmental Factors
• Gait
• Integumentary Integrity
• Mental Functions
• Mobility (Including Locomotion)
• Motor Function
• Muscle Performance (Including Strength, Power, Endurance, and Length)
• Neuromotor Development and Sensory Processing
• Pain
• Posture
• Range of Motion
• Self-Care and Domestic Life
• Skeletal Integrity
• Ventilation and Respiration
• Work Life

Evaluation, Diagnosis, Prognosis (Including Plan of Care)

Read Principles of Physical Therapist Patient and Client Management.

Factors That May Require New Episode of Care or That May Modify Frequency of Visits/Duration of Care:

• Accessibility and availability of resources
• Adherence to the intervention program
• Age
• Anatomical and physiological changes related to growth and development
• Caregiver consistency or expertise
• Chronicity or severity of the current condition
• Comorbidities, complications, or secondary impairments
• Concurrent medical, surgical, and therapeutic interventions
• Level of impairment of body functions and structures
• Level of independence in activity and participation
• Living environment
• Mental status
• Multisite or multisystem involvement
• Nutritional status
• Overall health status
• Potential destinations at conclusion of care
• Premorbid conditions
• Probability of prolonged impairment of body functions and structures and probability of activity limitations and participation restrictions
• Psychological and socioeconomic factors
• Psychomotor abilities
• Social support
• Stability of the condition

**Intervention**

Read *Intervention*.

The categories of interventions for this pattern are:

• Patient or Client Instruction
• Airway Clearance Techniques
• Functional Training in Self-Care and in Domestic, Education, Work, Community, Social, and Civic Life
• Manual Therapy Techniques
• Motor Function Training
• Therapeutic Exercise

**Reexamination**

Read *Physical Therapist Examination and Evaluation: Focus on Tests and Measures*.

**Outcomes for Patients or Clients**

Read *Measurement and Outcomes*.

**Concluding an Episode of Care**

Read “Criteria for Concluding an Episode of Care” under *Intervention*. 

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Pattern 6E: Impaired Ventilation and Respiration/Gas Exchange Associated With Ventilatory Pump Dysfunction or Failure

**Inclusion**

The following examples of examination findings may support the inclusion of clients in this pattern:

**Risk Factors or Consequences of Pathology/Pathophysiology (Disease, Disorder, or Condition)**

- Elevated diaphragm and volume loss on chest radiograph
- Neuromuscular disorders
- Partial or complete diaphragmatic paralysis
- Poliomyelitis
- Pulmonary fibrosis
- Restrictive lung disease
- Severe kyphoscoliosis
- Spinal/cerebral neoplasm
- Spinal cord injury

**Impairments of Body Functions and Structures, Activity Limitations, or Participation Restrictions**

- Abnormal or adventitious breath sounds
- Abnormal increased respiratory rate and decreased tidal volume at rest
- Airway clearance dysfunction secondary to ventilatory pump impairment
- Decreased to severely impaired strength and endurance of ventilatory muscles
- Dyspnea with self-care
- Dyspnea with work tasks
- Dyssynchronous or paradoxical breathing at rest or with activity
- Progressive decrease in arterial oxygen and increase in carbon dioxide off ventilator
- Ventilatory pump impairment requiring assistive ventilatory support to maintain gas exchange
Exclusion or Multiple-Pattern Classification

The following examples of examination findings may support exclusion from this pattern or classification into additional patterns. Depending on the level of severity or complexity of the examination findings, the physical therapist may determine that the patient/client would be more appropriately managed through (1) classification in an entirely different pattern or (2) classification in both this and another pattern.

Findings That May Require Classification in a Different Pattern

- Impairments associated with acute pneumonia
- Impairments associated with acute respiratory failure
- Impairments associated with primary airway clearance disorders

Findings That May Require Classification in Additional Patterns

- Cardiothoracic surgery
- Decubitus ulcer

Examination

Read Physical Therapist Examination and Evaluation: Focus on Tests and Measures.

Tests and Measures for Pattern 6E
Tests and measures for this pattern may include those that characterize or quantify:

- Aerobic Capacity/Endurance
- Anthropometric Characteristics
- Assistive Technology
- Balance
- Circulation (Arterial, Venous, Lymphatic)
- Community, Social, and Civic Life
- Cranial and Peripheral Nerve Integrity
- Education Life
- Environmental Factors
- Gait
- Integumentary Integrity
- Joint Integrity and Mobility
- Mental Functions
- Mobility (Including Locomotion)
• Muscle Performance (Including Strength, Power, Endurance, and Length)
• Neuromotor Development and Sensory Processing
• Pain
• Posture
• Range of Motion
• Reflex Integrity
• Self-Care and Domestic Life
• Sensory Integrity
  Skeletal Integrity
• Ventilation and Respiration
• Work Life

**Evaluation, Diagnosis, Prognosis (Including Plan of Care)**

Read *Principles of Physical Therapist Patient and Client Management*.

Factors That May Require New Episode of Care or That May Modify Frequency of Visits/Duration of Care:

• Accessibility and availability of resources
• Adherence to the intervention program
• Age
• Anatomical and physiological changes related to growth and development
• Caregiver consistency or expertise
• Chronicity or severity of the current condition
• Comorbidities, complications, or secondary impairments
• Concurrent medical, surgical, and therapeutic interventions
• Level of impairment of body functions and structures
• Level of independence in activity and participation
• Living environment
• Mental status
• Multisite or multisystem involvement
• Nutritional status
• Overall health status
• Potential destinations at conclusion of care
• Premorbid conditions
• Probability of prolonged impairment of body functions and structures and probability of activity limitations and participation restrictions
• Psychological and socioeconomic factors
• Psychomotor abilities
• Social support
• Stability of the condition

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**Intervention**

Read **Intervention**.

The categories of interventions for this pattern are:

- Patient or Client Instruction
- Airway Clearance Techniques
- Biophysical Agents
- Functional Training in Self-Care and in Domestic, Education, Work, Community, Social, and Civic Life
- Manual Therapy Techniques
- Motor Function Training
- Therapeutic Exercise

**Reexamination**

Read **Physical Therapist Examination and Evaluation: Focus on Tests and Measures**.

**Outcomes for Patients or Clients**

Read **Measurement and Outcomes**.

**Concluding an Episode of Care**

Read “Criteria for Concluding an Episode of Care” under **Intervention**.
Pattern 6F: Impaired Ventilation and Respiration/Gas Exchange Associated With Respiratory Failure

Inclusion

The following examples of examination findings may support the inclusion of clients in this pattern:

Risk Factors or Consequences of Pathology/Pathophysiology (Disease, Disorder, or Condition)

- Abnormal chest radiograph
- Acute neuromuscular dysfunction
- Adult respiratory distress syndrome
- Abnormal alveolar to arterial oxygen tension differences
- Asthma
- Cardiothoracic surgery
- Chronic obstructive pulmonary disease (COPD)
- Inability to maintain adequate oxygen tension with supplemental oxygen
- Multisystem failure
- Pneumonia
- Pre- and post-lung transplant or rejection
- Rapid rise in arterial carbon dioxide at rest or with activity
- Sepsis
- Thoracic or multisystem trauma

Impairments of Body Functions and Structures, Activity Limitations, or Participation Restrictions

- Abnormal or adventitious breath sounds
- Abnormal vital capacity
- Airway clearance dysfunction
- Dyspnea at rest
- Dyssynchronous or paradoxical breathing pattern
- Impaired gas exchange
- Significantly increased respiratory rate at rest (>35)
Exclusion or Multiple-Pattern Classification

The following examples of examination findings may support exclusion from this pattern or classification into additional patterns. Depending on the level of severity or complexity of the examination findings, the physical therapist may determine that the patient/client would be more appropriately managed through (1) classification in an entirely different pattern or (2) classification in both this and another pattern.

Findings That May Require Classification in a Different Pattern

- Age of less than 4 months
- Impairments associated with cardiovascular pump failure
- Impairments associated with chronic ventilatory pump failure

Findings That May Require Classification in Additional Patterns

- Multisite fracture
- Multitrauma with open wounds

Examination

Read Physical Therapist Examination and Evaluation: Focus on Tests and Measures.

Tests and Measures for Pattern 6F
Tests and measures for this pattern may include those that characterize or quantify:

- Aerobic Capacity/Endurance
- Anthropometric Characteristics
- Assistive Technology
- Balance
- Circulation (Arterial, Venous, Lymphatic)
- Community, Social, and Civic Life
- Cranial and Peripheral Nerve Integrity
- Education Life
- Gait
- Integumentary Integrity
- Mental Functions
- Mobility (Including Locomotion)
- Motor Function
- Muscle Performance (Including Strength, Power, Endurance, and Length)
- Pain
- Posture
Evaluation, Diagnosis, Prognosis (Including Plan of Care)

Read Principles of Physical Therapist Patient and Client Management.

Factors That May Require New Episode of Care or That May Modify Frequency of Visits/Duration of Care:

- Accessibility and availability of resources
- Adherence to the intervention program
- Age
- Anatomical and physiological changes related to growth and development
- Caregiver consistency or expertise
- Chronicity or severity of the current condition
- Comorbidities, complications, or secondary impairments
- Concurrent medical, surgical, and therapeutic interventions
- Level of impairment of body functions and structures
- Level of independence in activity and participation
- Living environment
- Mental status
- Multisite or multisystem involvement
- Nutritional status
- Overall health status
- Potential destinations at conclusion of care
- Premorbid conditions
- Probability of prolonged impairment of body functions and structures and probability of activity limitations and participation restrictions
- Psychological and socioeconomic factors
- Psychomotor abilities
- Social support
- Stability of the condition
**Intervention**

Read *Intervention*.

The categories of interventions for this pattern are:

- Patient or Client Instruction
- Airway Clearance Techniques
- Functional Training in Self-Care and in Domestic, Education, Work, Community, Social, and Civic Life
- Manual Therapy Techniques
- Motor Function Training
- Therapeutic Exercise

**Reexamination**

Read *Physical Therapist Examination and Evaluation: Focus on Tests and Measures*.

**Outcomes for Patients or Clients**

Read *Measurement and Outcomes*.

**Concluding an Episode of Care**

Read “Criteria for Concluding an Episode of Care” under *Intervention*.
Pattern 6G: Impaired Ventilation, Respiration/Gas Exchange, and Aerobic Capacity/Endurance Associated With Respiratory Failure in the Neonate

Inclusion

The following examples of examination findings may support the inclusion of clients in this pattern:

Risk Factors or Consequences of Pathology/Pathophysiology (Disease, Disorder, or Condition)

- Abdominal thoracic surgeries
- Apnea and bradycardia
- Bronchopulmonary dysphasia
- Congenital anomalies
- Hyaline membranes disease
- Meconium aspiration syndrome
- Neurovascular disorders
- Pneumonia
- Rapid desaturation with movement or crying

Impairments of Body Functions and Structures, Activity Limitations, or Participation Restrictions

- Abnormal pulmonary responses to activity
- Impaired airway clearance
- Impaired cough
- Impaired gas exchange
- Intercostal or subcostal retraction on inspiration
- Paradoxical or abnormal breathing pattern at rest or with activity
- Physiological intolerance of routine care
Exclusion or Multiple-Pattern Classification

The following examples of examination findings may support exclusion from this pattern or classification into additional patterns. Depending on the level of severity or complexity of the examination findings, the physical therapist may determine that the patient/client would be more appropriately managed through (1) classification in an entirely different pattern or (2) classification in both this and another pattern.

Findings That May Require Classification in a Different Pattern

- Age of greater than 4 months
- Neonate with central nervous system disorder without respiratory failure

Findings That May Require Classification in Additional Patterns

- Neonate with an intracranial bleed and respiratory failure

Examination

Read Physical Therapist Examination and Evaluation: Focus on Tests and Measures.

Tests and Measures for Pattern 6G
Tests and measures for this pattern may include those that characterize or quantify:

- Aerobic Capacity/Endurance
- Anthropometric Characteristics
- Assistive Technology
- Circulation (Arterial, Venous, Lymphatic)
- Cranial and Peripheral Nerve Integrity
- Integumentary Integrity
- Mental Functions
- Motor Function
- Muscle Performance (Including Strength, Power, Endurance, and Length)
- Neuromotor Development and Sensory Processing
- Pain
- Posture
- Range of Motion
- Reflex Integrity
- Skeletal Integrity
- Ventilation and Respiration
Evaluation, Diagnosis, Prognosis (Including Plan of Care)

Read Principles of Physical Therapist Patient and Client Management.

Factors That May Require New Episode of Care or That May Modify Frequency of Visits/Duration of Care:

- Accessibility and availability of resources
- Adherence to the intervention program
- Age
- Anatomical and physiological changes related to growth and development
- Caregiver consistency or expertise
- Chronicity or severity of the current condition
- Comorbidities, complications, or secondary impairments
- Concurrent medical, surgical, and therapeutic interventions
- Level of impairment of body functions and structures
- Level of independence in activity and participation
- Living environment
- Mental status
- Multisite or multisystem involvement
- Nutritional status
- Overall health status
- Potential destinations at conclusion of care
- Premorbid conditions
- Probability of prolonged impairment of body functions and structures and probability of activity limitations and participation restrictions
- Psychological and socioeconomic factors
- Psychomotor abilities
- Social support
- Stability of the condition

Intervention

Read Intervention.

The categories of interventions for this pattern are:

- Patient or Client Instruction
- Airway Clearance Techniques
- Biophysical Agents
• Functional Training in Self-Care and in Domestic, Education, Work, Community, Social, and Civic Life
• Manual Therapy Techniques
• Motor Function Training
• Therapeutic Exercise

Reexamination

Read Physical Therapist Examination and Evaluation: Focus on Tests and Measures.

Outcomes for Patients or Clients

Read Measurement and Outcomes.

Concluding an Episode of Care

Read “Criteria for Concluding an Episode of Care” under Intervention.
Pattern 6H: Impaired Circulation and Anthropometric Dimensions Associated With Lymphatic System Disorders

Inclusion

The following examples of examination findings may support the inclusion of clients in this pattern:

Risk Factors or Consequences of Pathology/Pathophysiology (Disease, Disorder, or Condition)

- Acquired immune deficiency syndrome
- Cellulitis
- Filariasis
- Infection/sepsis
- Lymphedema
- Post-radiation
- Reconstructive surgery
- Reflex sympathetic dystrophy
- Status post lymph node dissection
- Trauma

Impairments of Body Functions and Structures, Activity Limitations, or Participation Restrictions

- Decreased participation in social activities as a result of perceived body image
- Difficulty dressing
- Edema
- Impaired skin integrity
- Pain
Exclusion or Multiple-Pattern Classification

The following examples of examination findings may support exclusion from this pattern or classification into additional patterns. Depending on the level of severity or complexity of the examination findings, the physical therapist may determine that the patient/client would be more appropriately managed through (1) classification in an entirely different pattern or (2) classification in both this and another pattern.

Findings That May Require Classification in a Different Pattern

- Impairments associated with congestive heart failure

Findings That May Require Classification in Additional Patterns

- Dependent edema with cellulitis

Examination

Read Physical Therapist Examination and Evaluation: Focus on Tests and Measures.

Tests and Measures for Pattern 6H

Tests and measures for this pattern may include those that characterize or quantify:

- Aerobic Capacity/Endurance
- Anthropometric Characteristics
- Assistive Technology
- Balance
- Circulation (Arterial, Venous, Lymphatic)
- Community, Social, and Civic Life
- Cranial and Peripheral Nerve Integrity
- Education Life
- Environmental Factors
- Gait
- Integumentary Integrity
- Mental Functions
- Mobility (Including Locomotion)
- Muscle Performance (Including Strength, Power, Endurance, and Length)
- Pain
- Posture
- Range of Motion
• Reflex Integrity
• Sensory Integrity
• Skeletal Integrity
• Ventilation and Respiration
• Work Life

**Evaluation, Diagnosis, Prognosis (Including Plan of Care)**

Read *Principles of Physical Therapist Patient and Client Management*.

Factors That May Require New Episode of Care or That May Modify Frequency of Visits/Duration of Care:

- Accessibility and availability of resources
- Adherence to the intervention program
- Age
- Anatomical and physiological changes related to growth and development
- Caregiver consistency or expertise
- Chronicity or severity of the current condition
- Comorbidities, complications, or secondary impairments
- Concurrent medical, surgical, and therapeutic interventions
- Level of impairment of body functions and structures
- Level of independence in activity and participation
- Living environment
- Mental status
- Multisite or multisystem involvement
- Nutritional status
- Overall health status
- Potential destinations at conclusion of care
- Premorbid conditions
- Probability of prolonged impairment of body functions and structures and probability of activity limitations and participation restrictions
- Psychological and socioeconomic factors
- Psychomotor abilities
- Social support
- Stability of the condition
**Intervention**

Read *Intervention*.

The categories of interventions for this pattern are:

- Patient or Client Instruction
- Airway Clearance Techniques
- Biophysical Agents
- Functional Training in Self-Care and in Domestic, Education, Work, Community, Social, and Civic Life
- Manual Therapy Techniques
- Motor Function Training
- Therapeutic Exercise

**Reexamination**

Read *Physical Therapist Examination and Evaluation: Focus on Tests and Measures*.

**Outcomes for Patients or Clients**

Read *Measurement and Outcomes*.

**Concluding an Episode of Care**

Read “Criteria for Concluding an Episode of Care” under *Intervention*.
Pattern 61: Impaired Aerobic Capacity, Muscle Performance, Integumentary Integrity, and Mobility Associated With Peripheral Venous Disorders

Inclusion

The following examples of examination findings may support the inclusion of clients in this pattern:

Risk Factors or Consequences of Pathology/Pathophysiology (Disease, Disorder, or Condition)

- Arthroplasty
- Cancer
- Congestive heart failure
- Deep vein thrombosis (DVT)
- Hematological disorders
- Hormonal contraception
- Hormone replacement therapy (HRT)
- Lower extremity fracture
- Neurological disorder affecting lower extremity musculature (SCI, MS, CVA)
- Obesity
- Pregnancy
- Recent immobilization
- Recent surgery
- Renal failure
- Smoking/tobacco use
- Superficial venous thrombosis
- Thrombophlebitis
- Trauma
- Venous hypertension
- Venous malformation

Impairments of Body Functions and Structures, Activity Limitations, or Participation Restrictions

- Abnormal anthropometric characteristics
- Decreased balance
- Decreased muscle strength
- Decreased range of motion; Joint integrity/mobility
- Decreased standing tolerance
- Edema
• Impaired balance
• Impaired gas exchange
• Inability to perform ADLs
• Infection
• Integumentary compromise
• Limitation in walking speed and/or distance
• Muscle imbalance
• Pain in dependent position

Exclusion or Multiple-Pattern Classification

The following examples of examination findings may support exclusion from this pattern or classification into additional patterns. Depending on the level of severity or complexity of the examination findings, the physical therapist may determine that the patient/client would be more appropriately managed through (1) classification in an entirely different pattern or (2) classification in both this and another pattern.

Findings That May Require Classification in a Different Pattern

• Acute congestive heart failure
• Diagnosed arterial disease in the extremity
• Lymphedema
• Respiratory compromise

Findings That May Require Classification in Additional Patterns

• Amputation
• Coronary artery disease (CAD) with cardiac muscle dysfunction
• Congestive heart failure
• Diabetes
• Integumentary compromise
• Renal failure
• Wounds
Examination

Read Physical Therapist Examination and Evaluation: Focus on Tests and Measures.

Tests and Measures for Pattern 6I
Tests and measures for this pattern may include those that characterize or quantify:

- Aerobic Capacity/Endurance
- Anthropometric Characteristics
- Assistive Technology
- Balance
- Circulation (Arterial, Venous, Lymphatic)
- Community, Social, and Civic Life
- Cranial and Peripheral Nerve Integrity
- Education Life
- Environmental Factors
- Gait
- Integumentary Integrity
- Joint Integrity and Mobility
- Mobility (Including Locomotion)
- Muscle Performance (Including Strength, Power, Endurance, and Length)
- Pain
- Posture
- Range of Motion
- Reflex Integrity
- Self-Care and Domestic Life
- Sensory Integrity
- Skeletal Integrity
- Ventilation and Respiration
- Work Life

Evaluation, Diagnosis, Prognosis (Including Plan of Care)

Read Principles of Physical Therapist Patient and Client Management.

Factors That May Require New Episode of Care or That May Modify Frequency of Visits/Duration of Care:

- Accessibility and availability of resources
- Adherence to the intervention program
- Age
- Anatomical and physiological changes related to growth and development
• Caregiver consistency or expertise
• Chronicity or severity of the current condition
• Comorbidities, complications, or secondary impairments
• Concurrent medical, surgical, and therapeutic interventions
• Level of impairment of body functions and structures
• Level of independence in activity and participation
• Living environment
• Mental status
• Multisite or multisystem involvement
• Nutritional status
• Overall health status
• Potential destinations at conclusion of care
• Premorbid conditions
• Probability of prolonged impairment of body functions and structures and probability of activity limitations and participation restrictions
• Psychological and socioeconomic factors
• Psychomotor abilities
• Social support
• Stability of the condition

**Intervention**

Read **Intervention**.

The categories of interventions for this pattern are:

• **Patient or Client Instruction**
• **Functional Training in Self-Care and in Domestic, Education, Work, Community, Social, and Civic Life**
• **Integumentary Repair and Protection Techniques**
• **Motor Function Training**
• **Therapeutic Exercise**

**Reexamination**

Read **Physical Therapist Examination and Evaluation: Focus on Tests and Measures**.
Outcomes for Patients or Clients

Read Measurement and Outcomes.

Concluding an Episode of Care

Read “Criteria for Concluding an Episode of Care” under Intervention.
Pattern 6J: Impaired Aerobic Capacity, Muscle Performance, Blood Flow in the Legs, Integumentary Integrity, and Mobility Associated With Peripheral Arterial Disorder

**Inclusion**

The following examples of examination findings may support the inclusion of clients in this pattern:

**Risk Factors or Consequences of Pathology/Pathophysiology (Disease, Disorder, or Condition)**

- Abnormal lower extremity pulse examination
- African Americans over age 50
- Age greater than 70 years; 50–69 years with history of smoking (10 pack years) or diabetes; Age less than 50 years, with diabetes and one other atherosclerosis risk factor (smoking, dyslipidemia, hypertension, or hyperhomocysteinemia)
- Aneurysm
- Arterial insufficiency
- Atherosclerosis; Family history of atherosclerosis
- Atherosclerotic coronary, carotid, or renal artery disease
- Cardiovascular disease
- Congenital abnormalities
- Diabetes
- Female gender predisposes a patient to more severe symptomatology and poorer function
- History of wounds
- Hypercholesterolemia
- Hyperhomocysteinemia
- Hypertension
- Leg symptoms with exertion or ischemic rest pain
- Metabolic syndrome
- Obesity
- Physical inactivity
- Smoking/tobacco use
- Stroke
- Thromboembolic disease
- Trauma
Impairments of Body Functions and Structures, Activity Limitations, or Participation Restrictions

- Abnormal anthropometric characteristics
- Abnormal posture
- Decreased muscle strength/endurance
- Decreased range of motion; Joint integrity/mobility
- Decreased sensory integrity; Neuropathy
- Decreased standing tolerance
- Diminished or absent peripheral pulses
- Impaired aerobic capacity
- Impaired balance
- Inability to perform instrumental ADLs
- Integumentary compromise
  - Atrophic skin
- Intermittent claudication
- Limitation in walking speed and/or distance; Decreased walking tolerance
- Muscle imbalance
- Pain

Exclusion or Multiple-Pattern Classification

The following examples of examination findings may support exclusion from this pattern or classification into additional patterns. Depending on the level of severity or complexity of the examination findings, the physical therapist may determine that the patient/client would be more appropriately managed through (1) classification in an entirely different pattern or (2) classification in both this and another pattern.

Findings That May Require Classification in a Different Pattern

- Abdominal aortic aneurysm
- Amputation
- Carotid, vertebral, and upper extremity arterial disease
- Lymphedema
- Mesenteric arterial disease
- Renal arterial disease
- Severe venous insufficiency, especially with open wounds
- Venous diseases (e.g., deep vein thrombosis, thrombophlebitis)
Findings That May Require Classification in Additional Patterns

- Chronic venous insufficiency
- Coronary artery disease
- Integumentary impairment
- Polyneuropathy
- Post-phlebitis syndrome
- Sensory alteration from diabetes
- Stroke
- Wounds

Examination

Read Physical Therapist Examination and Evaluation: Focus on Tests and Measures.

Tests and Measures for Pattern 6J
Tests and measures for this pattern may include those that characterize or quantify:

- Aerobic Capacity/Endurance
- Anthropometric Characteristics
- Assistive Technology
- Balance
- Circulation (Arterial, Venous, Lymphatic)
- Community, Social, and Civic Life
- Cranial and Peripheral Nerve Integrity
- Education Life
- Environmental Factors
- Gait
- Integumentary Integrity
- Joint Integrity and Mobility
- Mobility (Including Locomotion)
- Muscle Performance (Including Strength, Power, Endurance, and Length)
- Pain
- Posture
- Range of Motion
- Reflex Integrity
- Self-Care and Domestic Life
- Sensory Integrity
- Skeletal Integrity
- Work Life
Evaluation, Diagnosis, Prognosis (Including Plan of Care)

Read Principles of Physical Therapist Patient and Client Management.

Factors That May Require New Episode of Care or That May Modify Frequency of Visits/Duration of Care:

- Accessibility and availability of resources
- Adherence to the intervention program
- Age
- Anatomical and physiological changes related to growth and development
- Caregiver consistency or expertise
- Chronicity or severity of the current condition
- Comorbidities, complications, or secondary impairments
- Concurrent medical, surgical, and therapeutic interventions
- Level of impairment of body functions and structures
- Level of independence in activity and participation
- Living environment
- Mental status
- Multisite or multisystem involvement
- Nutritional status
- Overall health status
- Potential destinations at conclusion of care
- Premorbid conditions
- Probability of prolonged impairment of body functions and structures and probability of activity limitations and participation restrictions
- Psychological and socioeconomic factors
- Psychomotor abilities
- Social support
- Stability of the condition

Intervention

Read Intervention.

The categories of interventions for this pattern are:

- Patient or Client Instruction
- Functional Training in Self-Care and in Domestic, Education, Work, Community, Social, and Civic Life
• Integumentary Repair and Protection Techniques
• Motor Function Training
• Therapeutic Exercise

**Reexamination**

Read *Physical Therapist Examination and Evaluation: Focus on Tests and Measures.*

**Outcomes for Patients or Clients**

Read *Measurement and Outcomes.*

**Concluding an Episode of Care**

Read “Criteria for Concluding an Episode of Care” under *Intervention.*