



State-Approved Curriculum NURSE AIDE I TRAINING PROGRAM

July 2013 Module I



North Carolina Department of Health and Human Services
Division of Health Service Regulation
Health Care Personnel Registry Section
Center for Aide Regulation and Education
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Module I – Body Mechanics Teaching Guide

Objectives

- Describe principles of body mechanics that help prevent injury.
- Identify measures to safely assist a falling person to the floor.
- Describe correct positioning of residents.

Supplies

- 10-pound object to lift, such as a bag of potatoes (Teaching Tip #3I & Activity #1I)
- Mannequin in a bed (Activity #1I)
- Fun activity supplies for station #4 – yoga position sheet, hokie pokie song, hula hoop, aerobics exercise DVD, stretches resource sheet (Activity #1I)

Advance Preparation – In General

- Review curriculum and presentation materials
- Add examples or comments to Notes Section
- Set up computer/projector

Advance Preparation – Activities

- **#1I Application of Body Mechanics:** Duplicate puzzles for each student. Print instruction cards using card stock paper or computer paper that you will laminate. Decide how to pair up students and think about special situations (odd number of students, whether you want to set up additional stations beyond the 5 specified). Think about and plan Station #4 of Activity #1I. Set up 5 stations, in the lab, as directed in the instructor guide. Think about how you are going to notify students that it is time to move on to the next station.

**Module I – Body Mechanics
Definition List**

Alignment (posture) – how the head, trunk, arms, and legs are aligned with one another, when the back is straight

Base of Support – foundation that supports an object

Body Mechanics – efficient and safe use of the body by the coordination of body alignment, balance, and movement

Center of Gravity – point where most weight is concentrated for an object or body

Fowler's Position – resident reclined in a sitting position, at 45 to 60 degrees

High Fowler's Position – resident sitting up almost straight, at 60 to 90 degrees

Lateral Position – resident positioned on right or left

Prone Position – resident positioned on abdomen

Sims Position – resident positioned in left side lying position

Supine Position – resident positioned flat on back

Module I – Body Mechanics	
(S-1) Title Slide (S-2) Objectives <ol style="list-style-type: none"> 1. Describe principles of body mechanics that help prevent injury. 2. Identify measures to safely assist a falling person to the floor. 3. Describe correct positioning of residents. 	
Content	Notes
(S-3) Body Mechanics <ul style="list-style-type: none"> • Efficient and safe use of the body by the coordination of body alignment, balance, and movement 	
(S-4) Importance <ul style="list-style-type: none"> • Due to nature of their duties, nurse aides are subject to back and other injuries to the body so practicing correct body mechanics is critically important 	
(S-5) Importance <ul style="list-style-type: none"> • Maximizes strength, minimizes fatigue, avoids muscle strain and injury, and assures personal and resident safety • Job requirements for nurse aide include lifting, moving and carrying objects • Reduces costs to resident and facility • Reduces employee absences due to back injuries • Reduces liability for the facility due to workman's compensation • By not using proper body mechanics, even picking up piece of paper from the floor can cause back injury 	
(S-6) Body Mechanics – Nurse Aide's Role <ul style="list-style-type: none"> • Follow the ABC's of correct body mechanics <ul style="list-style-type: none"> ○ Alignment ○ Base of Support ○ Coordination 	
(S-7) ABC's of Correct Body Mechanics – Alignment <ul style="list-style-type: none"> • Also known as posture • How the head, trunk, arms, and legs are aligned with one another, when the back is straight 	
(S-8) ABC's of Correct Body Mechanics – Alignment <ul style="list-style-type: none"> • Correct body alignment allows the body to move and function efficiently and with strength • When you stand up straight, a line can be drawn straight down through the center of your body and the two sides of body are mirror images of each other, with body parts lined up naturally, arms at the side, palms directed forward, and feet pointed forward and slightly apart (also called anatomic position) • Important to maintain correct body alignment when sitting and 	

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lying down	
(S-9) ABC's of Correct Body Mechanics – Alignment <ul style="list-style-type: none"> • Maintain correct body alignment when lifting/carrying an object <ul style="list-style-type: none"> ○ Keep object close to the body ○ Point feet and body in direction you are moving ○ Do not twist at waist 	
(S-10) ABC's of Correct Body Mechanics – Base of Support <ul style="list-style-type: none"> • Foundation that supports an object • Good base of support needed for balance • Wide base of support more stable than narrow base of support • For a person, the feet are the base of support (legs shoulder-length apart is ideal) 	
TEACHING TIP #11 Base of Support Ask students to stand up at their desks: First, have students stand on one foot. Ask students: <ul style="list-style-type: none"> • How stable are you? Second, have students stand with both feet together. Ask students: <ul style="list-style-type: none"> • How stable do you feel? Third, have students stand with both feet shoulder length apart. Ask students: <ul style="list-style-type: none"> • How stable do you feel now? Reinforce the fact that for a person, the feet are the base of support and when feet and legs are shoulder-length apart, base of support is ideal	
(S-11) ABC's of Correct Body Mechanics – Center of Gravity <ul style="list-style-type: none"> • Point where most weight is concentrated for an object or body • For a standing person, pelvis is center of gravity • A low center of gravity gives you a more stable base of support and balance is increased 	
(S-12) ABC's of Correct Body Mechanics – Center of Gravity <ul style="list-style-type: none"> • By bending knees to lift an object, instead of at the waist <ul style="list-style-type: none"> ○ Center of gravity lowered ○ Stability increases ○ Less likely to strain muscles • When moving or transferring resident, center of gravity includes the resident, so resident needs to be close to your body as possible 	

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(S-13) Points to Remember When Lifting <ul style="list-style-type: none"> • When given a choice, push or slide objects rather than lifting them • Use large muscles of upper arms and thighs to lift • Keep movements smooth when lifting and do not twist or make jerky movements • Face object or person when moving • Use both arms and hands when lifting, pushing or carrying objects 	
TEACHING TIP #2I Everyday Body Mechanics Ask students: <ul style="list-style-type: none"> • Think of ways you can use body mechanics concepts in everyday life at home 	
(S-14) Body Mechanics – Points to Remember <ul style="list-style-type: none"> • Raise bed to about waist height when changing linen 	
(S-15) Body Mechanics <ul style="list-style-type: none"> • What if.....? 	
(S-16) You Need to Lift an Object From the Floor <ul style="list-style-type: none"> • Bend hips/knees and get close to object before lifting • Face object • Grip object firmly with both hands • Move smoothly and not jerky • Lift by pushing up with strong leg muscles • Use wide base of support • Get help when needed 	
(S-17) You Need to Lift an Object From the Floor Illustrations <ul style="list-style-type: none"> • Pictures of a man correctly lifting a box from the floor 	
(S-18) A Resident is About to Fall <ul style="list-style-type: none"> • Simply control direction of fall by easing resident to floor, protecting head • Keep resident still until nurse can check for injuries • DO NOT try to hold the resident up because it can hurt nurse aide and resident • DO NOT try to hold the resident up because the nurse aide may lose balance and both land on floor 	
TEACHING TIP #3I Demonstrate Demonstrate how to lift a 10-pound object (for example, a bag of	

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<p>potatoes) using good body mechanics.</p> <p>Demonstrate how to correctly handle a resident who is about to fall, using a student volunteer.</p> <p>TEACHING TIP #4I</p> <p>Ask students:</p> <ul style="list-style-type: none"> • Provide examples of poor body mechanics that you have observed. 	
<p>(S-19) Positioning the Resident</p> <ul style="list-style-type: none"> • Resident must be properly positioned and correctly aligned at all times 	
<p>(S-20) Positioning the Resident – Importance</p> <ul style="list-style-type: none"> • Regular position changes and correct alignment <ul style="list-style-type: none"> ○ Promote well-being and comfort ○ Promote easier breathing ○ Promote circulation ○ Prevent pressure ulcers and contractures 	
<p>(S-21) Positioning the Resident – Nurse Aide’s Role</p> <ul style="list-style-type: none"> • Reposition in bed or chair at least every two (2) hours (or more frequently per care plan) • Use good body mechanics • Ask a co-worker for assistance as needed • Use pillows for support and correct alignment • Understand correct placement for variety of positions while resident is in bed 	
<p>(S-22) Positioning the Resident (Supine) – Nurse Aide’s Role</p> <ul style="list-style-type: none"> • Lies flat on back • Remember – facing UP (sUPine) 	
<p>(S-23) Positioning the Resident (Prone) – Nurse Aide’s Role</p> <ul style="list-style-type: none"> • Lying on abdomen • Not a comfortable position for many people • Never leave resident in prone position very long 	
<p>(S-24) Positioning the Resident (Fowler’s) – Nurse Aide’s Role</p> <ul style="list-style-type: none"> • Reclined sitting position • 45 to 60 degrees 	

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(S-25) Positioning the Resident (High Fowler's) – Nurse Aide's Role <ul style="list-style-type: none"> • Sitting up almost straight • 60 to 90 degrees 	
(S-26) Positioning the Resident (Lateral) – Nurse Aide's Role <ul style="list-style-type: none"> • Lying on right or left-side 	
(S-27) Positioning the Resident (Sims) – Nurse Aide's Role <ul style="list-style-type: none"> • Left side-lying position 	
(S-28) THE END	
ACTIVITY #11: Application of Body Mechanics (Group) Refer to Instructor's Guide.	

Station #5 Body Mechanics Puzzles

Word Search: Search for words from Module I Body Mechanics. Words may be frontwards, backwards, across, and up-and-down. A word bank is included below.

B	O	D	Y	M	E	C	H	A	N	I	C	S	X	C	T	R	I	G	O	I	H	S
Z	T	O	R	R	Y	I	O	P	H	J	I	'	F	G	N	E	R	N	B	N	M	U
E	H	O	S	K	M	Q	G	I	T	O	Y	R	U	Z	E	M	N	I	O	P	P	P
N	A	T	T	L	I	A	H	O	A	S	D	E	M	O	M	O	P	N	P	S	D	I
O	W	L	A	T	E	R	A	L	E	G	G	L	J	V	N	M	O	O	D	S	Y	N
R	S	J	A	O	O	G	J	U	R	R	B	W	K	B	G	M	P	I	O	I	U	E
P	D	I	B	P	P	H	I	K	T	I	F	O	L	I	I	M	S	T	I	M	U	G
Z	F	K	C	X	H	M	K	I	Y	Y	D	F	O	L	L	H	X	I	K	S	I	H
V	G	P	O	S	T	U	R	E	S	H	C	R	P	Y	A	J	C	S	M	Q	I	T
R	H	C	R	T	R	O	P	P	U	S	F	O	E	S	A	B	S	O	M	S	O	F
I	E	R	Z	N	F	O	O	O	E	U	P	D	S	I	R	I	D	P	P	E	P	E
K	C	I	T	I	N	T	R	Y	T	I	V	A	R	G	F	O	R	E	T	N	E	C
C	O	O	R	D	I	N	A	T	I	O	N	C	O	O	R	X	E	U	S	R	F	C

Word Scramble: Unscramble the words from Module I Body Mechanics. A word bank is included below.

sabe fo pposutr _____ pseuin _____

atnigemln _____ utosepr _____

erpon _____ dnoioortacni _____

'fwleors _____ stoginnpiio _____

etecnr of ygartiv _____ ssmi _____

dybo nmcehasci _____ llaaret _____

Word Bank: center of gravity, body mechanics, lateral, positioning, coordination, alignment, Sims, prone, base of support, Fowler's, supine, posture

Station #5 Body Mechanics Puzzles Answers

Word Search: Search for words from Module I Body Mechanics. Words may be frontwards, backwards, across, and up-and-down. A word bank is included below.

<u>B</u>	<u>O</u>	<u>D</u>	<u>Y</u>	<u>M</u>	<u>E</u>	<u>C</u>	<u>H</u>	<u>A</u>	<u>N</u>	<u>I</u>	<u>C</u>	<u>S</u>	X	C	<u>T</u>	R	I	<u>G</u>	O	I	H	<u>S</u>
Z	T	O	R	R	Y	I	O	P	H	J	I	<u>'</u>	F	G	<u>N</u>	E	R	<u>N</u>	B	N	M	<u>U</u>
<u>E</u>	H	O	S	K	M	Q	G	I	T	O	Y	<u>R</u>	U	Z	<u>E</u>	M	N	<u>I</u>	O	P	P	<u>P</u>
<u>N</u>	A	T	T	L	I	A	H	O	A	S	D	<u>E</u>	M	O	<u>M</u>	O	P	<u>N</u>	P	S	D	<u>I</u>
<u>O</u>	W	<u>L</u>	<u>A</u>	<u>T</u>	<u>E</u>	<u>R</u>	<u>A</u>	<u>L</u>	E	G	G	<u>L</u>	J	V	<u>N</u>	M	O	<u>O</u>	D	<u>S</u>	Y	<u>N</u>
<u>R</u>	S	J	A	O	O	G	J	U	R	R	B	<u>W</u>	K	B	<u>G</u>	M	P	<u>I</u>	O	<u>I</u>	U	<u>E</u>
<u>P</u>	D	I	B	P	P	H	I	K	T	I	F	<u>O</u>	L	I	<u>I</u>	M	S	<u>T</u>	I	<u>M</u>	U	G
Z	F	K	C	X	H	M	K	I	Y	Y	D	<u>F</u>	O	L	<u>L</u>	H	X	<u>I</u>	K	<u>S</u>	I	H
V	G	<u>P</u>	<u>O</u>	<u>S</u>	<u>T</u>	<u>U</u>	<u>R</u>	<u>E</u>	S	H	C	R	P	Y	<u>A</u>	J	C	<u>S</u>	M	Q	I	T
R	H	C	<u>R</u>	<u>T</u>	<u>R</u>	<u>O</u>	<u>P</u>	<u>P</u>	<u>U</u>	<u>S</u>	<u>F</u>	<u>O</u>	<u>E</u>	<u>S</u>	<u>A</u>	<u>B</u>	S	<u>O</u>	M	S	O	F
I	E	R	Z	N	F	O	O	O	E	U	P	D	S	I	R	I	D	<u>P</u>	P	E	P	E
K	C	I	T	I	N	T	R	<u>Y</u>	<u>T</u>	<u>I</u>	<u>V</u>	<u>A</u>	<u>R</u>	<u>G</u>	<u>F</u>	<u>O</u>	<u>R</u>	<u>E</u>	<u>T</u>	<u>N</u>	<u>E</u>	<u>C</u>
<u>C</u>	<u>O</u>	<u>O</u>	<u>R</u>	<u>D</u>	<u>I</u>	<u>N</u>	<u>A</u>	<u>T</u>	<u>I</u>	<u>O</u>	<u>N</u>	C	O	O	R	X	E	U	S	R	F	C

Word Scramble: Unscramble the words from Module I Body Mechanics. A word bank is included below.

sabe fo pposutr base of support

pseuin supine

atnigemln alignment

utosepr posture

erpon prone

dnoioortacni coordination

'fwleors Fowler's

stoginnpiio positioning

etecnr of ygartiv center of gravity

ssmi Sims

dybo nmcehasci body mechanics

llaaret lateral

Word Bank: center of gravity, body mechanics, lateral, positioning, coordination, alignment, Sims, prone, base of support, Fowler's, supine, posture