

Content Description	
Physics and instrumentation	7%
<i>Shoulder</i>	
Manipulate probe positioning for optimal image acquisition	
Interrogate the area of concern at various insonation angles	
Use 2-D real-time, gray-scale imaging (i.e., B-mode)	
Use knowledge of reflectors to modify scanning technique	
Use linear array transducer	
Identify a specific transducer type based on the area being scanned	
<i>Elbow</i>	
Manipulate probe positioning for optimal image acquisition	
Interrogate the area of concern at various insonation angles	
Use 2-D, real-time, gray-scale imaging (i.e., B-mode)	
Use knowledge of reflectors to modify scanning technique	
Use linear array transducer	
Identify a specific transducer type based on the area being scanned	
<i>Wrist and hand</i>	
Manipulate probe positioning for optimal image acquisition	
Interrogate the area of concern at various insonation angles	
Use 2-D, real-time, gray-scale imaging (i.e., B-mode)	
Use knowledge of reflectors to modify scanning technique	
Use linear array transducer	
Identify a specific transducer type based on the area being scanned	
<i>Hip</i>	
Manipulate probe positioning for optimal image acquisition	
Interrogate the area of concern at various insonation angles	
Use 2-D, real-time, gray-scale imaging (i.e., B-mode)	
Use knowledge of reflectors to modify scanning technique	
Use linear array transducer	
Identify a specific transducer type based on the area being scanned	
<i>Knee</i>	
Manipulate probe positioning for optimal image acquisition	



Interrogate the area of concern at various insonation angles
Use 2-D, real-time, gray-scale imaging (i.e., B-mode)
Use knowledge of reflectors to modify scanning technique
Use linear array transducer
Identify a specific transducer type based on the area being scanned
<i>Ankle and foot</i>
Manipulate probe positioning for optimal image acquisition
Interrogate the area of concern at various insonation angles
Use 2-D, real-time, gray-scale imaging (i.e., B-mode)
Use knowledge of reflectors to modify scanning technique
Use linear array transducer
Identify a specific transducer type based on the area being scanned
<i>Soft tissue</i>
Manipulate probe positioning for optimal image acquisition
Interrogate the area of concern at various insonation angles
Use 2-D, real-time, gray-scale imaging (i.e., B-mode)
Use knowledge of reflectors to modify scanning technique
Use linear array transducer
Identify a specific transducer type based on the area being scanned
<i>General</i>
Annotate images
Ensure proper equipment hygiene/clean the equipment
Clean and disinfect transducers in accordance with manufacturer's guidelines
Perform basic cleaning (e.g., cleaning filters) of the ultrasound system
Formally document the ultrasound examination by using the ultrasound machine to store images
Knowledge of picture archiving and communication system (PACS) or hard copy image acquisition
Record digital video clips
Identify potential risks related to performing the exam
Know ALARA (As Low As Reasonably Achievable) principles
Inspect machine for damage
Maintain equipment safety checks
Perform quality assurance checks on equipment
Manually optimize the image



Adjust color angle to flow
Adjust color gain
Adjust color scale
Adjust Doppler angle to flow
Adjust Doppler gain
Adjust Doppler scale
Adjust dynamic range
Adjust edge enhancement
Adjust overall gain
Adjust persistence
Adjust the depth of focus
Adjust the display depth based on exam being performed
Adjust the gray-scale map
Adjust the number of focal zones during the exam
Adjust time gain compensation
Heel toe to overcome anisotropy
Modify the exam based on color artifacts
Modify the exam based on Doppler artifacts
Modify the exam based on gray-scale artifacts
Select equipment parameters to optimize axial resolution
Select equipment parameters to optimize elevational resolution
Select equipment parameters to optimize lateral resolution
Select equipment parameters to optimize temporal resolution
Use extended field of view
Use frequency compounding
Use harmonic imaging
Use knowledge of reflectors to modify scanning technique
Use spatial compounding
Utilize power Doppler imaging
Minimize the risk for any potential ultrasound bioeffects during the examination
Monitor the displayed mechanical index during the examination
Monitor the displayed thermal index during the examination
Record images on a picture archiving and communication system (PACS)



Posses knowledge of picture archiving and communication system (PACS) or hard copy image acquisitions
Record images on digital media (e.g., external media, etc.)
Posses knowledge of picture archiving and communication system (PACS) or hard copy image acquisitions
Select appropriate transducer and presets
Adjust transducer frequency based on area being scanned
Decrease output power when appropriate
Identify a specific transducer type based on the area being scanned
Use linear array transducers
Use phased array transducers
Select proper ultrasound imaging mode for examination
Adjust transducer frequency based on area being scanned
Identify a specific transducer type based on the area being scanned
Use color flow imaging
Adjust color angle to flow
Adjust color gain
Adjust color scale
Modify the exam based on color artifacts
Use curvilinear array transducer
Use phased array transducer
Use phased array transducer
Use power Doppler
Knowledge of power Doppler imaging
Use pulsed wave Doppler
Adjust Doppler angle to flow
Adjust Doppler gain
Adjust Doppler scale
Modify the exam based on Doppler artifacts

