



**Musculoskeletal Sonography (RMSK) Examination
Content Outline Summary**

	Domain	Percentage
1	General Sonographic Anatomy	26%
2	General Sonographic Pathology	23%
3	Ultrasound-guided Interventional Procedures	18%
4	Integration of Data	7%
6	Physics and Instrumentation	26%
Total		100%



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**Musculoskeletal Sonography (RMSK) Examination Content Outline
(Detailed Outline)**

1.	General Sonographic Anatomy	26%
1.Q.	Abdominal wall	
1.Q.1.	Perform general ultrasound of the ligaments, neurovascular system, and tendons of the abdominal wall	
1.R.	Ankle and foot	
1.R.1.	Perform general ultrasound of the bones, bursae, cartilage, and joints of the ankle and foot	
1.R.2.	Perform general ultrasound of the fascia, ligaments, and tendons of the ankle and foot	
1.R.3.	Perform general ultrasound of the neurovascular system of the ankle and foot	
1.S.	Chest wall	
1.S.1.	Perform general ultrasound of the bones, bursae, cartilage, ligaments, muscles, neurovascular system, and tendons of the chest wall	
1.T.	Elbow	
1.T.1.	Perform general ultrasound of the bones, bursae, cartilage, and joints of the elbow	
1.T.2.	Perform general ultrasound of the tendons of the elbow	
1.U.	Hand and wrist	
1.U.1.	Perform general ultrasound of the bones, cartilage, joints, and ligaments of the hand and wrist	
1.U.2.	Perform general ultrasound of the neurovascular system of the hand and wrist	
1.U.3.	Perform general ultrasound of the tendons of the hand and wrist	
1.V.	Hip and groin	
1.V.1.	Perform general ultrasound of the bursae, cartilage, joints, and ligaments of the hip and groin	
1.V.2.	Perform general ultrasound of the neurovascular system of the hip and groin	
1.V.3.	Perform general ultrasound of the tendons of the hip and groin	
1.W.	Knee	
1.W.1.	Perform general ultrasound of the bones, bursae, joints, ligaments, and tendons of the knee	
1.W.2.	Perform general ultrasound of the neurovascular system of the knee	
1.X.	Shoulder	
1.X.1.	Perform general ultrasound of the bones, bursae, cartilage, joints, and ligaments of the shoulder	
1.X.2.	Perform general ultrasound of the neurovascular system of the shoulder	
1.X.3.	Perform general ultrasound of the tendons of the shoulder	
2.	General Sonographic Pathology	23%
2.B.	Abnormal physiology	
2.B.1.	Evaluate abscesses	
2.B.2.	Evaluate bone erosion	
2.B.3.	Evaluate cartilage pathology	
2.B.4.	Evaluate crystal deposits	
2.B.5.	Evaluate cystic structures	
2.B.6.	Evaluate for gas in soft tissues	
2.B.7.	Evaluate foreign bodies	
2.B.8.	Evaluate fractures	
2.B.9.	Evaluate infections	
2.B.10.	Evaluate joint instability/altered function	
2.B.11.	Evaluate joint effusions	
2.B.12.	Evaluate ligament tears	
2.B.13.	Evaluate masses	
2.B.14.	Evaluate muscle tears	
2.B.15.	Evaluate nerve entrapment	
2.B.16.	Evaluate neuromas	
2.B.17.	Evaluate subcutaneous abnormalities	
2.B.18.	Evaluate synovial proliferation	
2.B.19.	Evaluate synovitis	
2.B.20.	Evaluate tendon calcification	
2.B.21.	Evaluate tendon tears	
3.	Ultrasound-guided Interventional Procedures	18%
3.R.	Ankle and foot	
3.R.1.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the bursae and joints of the ankle and foot	
3.R.2.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the fascia, ligaments, and tendons of the ankle and foot	
3.R.3.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the neurovascular system of the ankle and foot	



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3.S.	Chest wall
3.S.1.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the bursae, ligaments, muscles, sternoclavicular joints, neurovascular system, and tendons of the chest wall
3.T.	Elbow
3.T.1.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the bursae, joints, and tendons of the elbow
3.U.	Hand and wrist
3.U.1.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the joints and ligaments of the hand and wrist
3.U.2.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the tendons of the hand and wrist
3.U.3.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the neurovascular system of the hand and wrist
3.V.	Hip and groin
3.V.1.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the bursae and joints of the hip and groin
3.V.2.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the tendons of the hip and groin
3.V.3.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the neurovascular system of the hip and groin
3.W.	Knee
3.W.1.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the bursae and joints of the knee
3.W.2.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the ligaments and tendons of the knee
3.W.3.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the neurovascular system of the knee
3.X.	Shoulder
3.X.1.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the bursae, joints, and ligaments of the shoulder
3.X.2.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the neurovascular system of the shoulder
3.X.3.	Perform interventional procedures (e.g., aspirations, biopsies, injections) on the tendons of the shoulder
4.	Integration of Data 7%
4.A.	Incorporate outside data (e.g., clinic assessment, history and physical, lab values)
4.A.1.	Assess anatomy as it relates to trauma
4.A.2.	Assess joints with dynamic scanning
4.A.3.	Correlate information with previous tests
4.A.4.	Correlate sonographic findings with clinical presentation
4.A.5.	Report results of the exam
6.	Physics and Instrumentation 26%
6.D.	Imaging instruments
6.D.1.	Adjust beam angle to correct for anisotropy
6.D.2.	Adjust imaging depth
6.D.3.	Adjust overall gain
6.D.4.	Adjust power output
6.D.5.	Adjust pulse repetition frequency (PRF)
6.D.6.	Adjust sound beam and needle angle for proper visualization of needle
6.D.7.	Evaluate acoustic shadowing and refractile shadowing and identify artifacts
6.D.8.	Evaluate Doppler artifacts
6.D.9.	Focus the image
6.D.10.	Identify artifacts (e.g., through transmission, shadowing)
6.D.11.	Identify potential risks related to performing the exam
6.D.12.	Manipulate transducer position for optimal image acquisition
6.D.13.	Perform image measurements
6.D.14.	Select appropriate transducer
6.D.15.	Select proper ultrasound imaging mode for examination
6.D.16.	Use color Doppler
6.D.17.	Use curvilinear array transducer
6.D.18.	Use dynamic range
6.D.19.	Use linear array transducer
6.D.20.	Use phased array transducer
6.D.21.	Use power Doppler
6.D.22.	Use pulsed wave Doppler
6.D.23.	Use time gain compensation (TGC)
6.D.24.	Use two-dimensional, real-time, gray-scale imaging (e.g., B-mode)