

# Shoulder Arthroscopy Curriculum

## Description

All those with an interest in the shoulder should develop a basic level of proficiency and should be able to perform a thorough diagnostic exam, looking from both the anterior and the posterior portals. In addition, one should also be able to perform simple procedures. To master arthroscopic techniques, it is important to develop a basic foundation and then build on it in a systematic manner to advance one's surgical technique.

## Objectives

- ◆ Be familiar with the arthroscopic anatomy of the shoulder
- ◆ Practice on how to manipulate arthroscopic tools inside the shoulder safely and efficiently
- ◆ Learn the common path of a systematic examination of the shoulder
- ◆ Learn how to identify and document pathological conditions in the shoulder
- ◆ Be familiar with portals establishment technique
- ◆ Learn the tips and tricks for successful subacromial decompression procedure
- ◆ Understand the amount of bone resection required for acromioplasty
- ◆ Practice on controlling complications during subacromial decompression

## Target Audience

- ◆ Orthopedic surgery residents from PGY1 through PGY3
- ◆ Practicing orthopedic surgeons with limited experience performing arthroscopic surgery
- ◆ Beginning arthroscopists

## Assumptions

- ◆ The learner has little experience with arthroscopy.
- ◆ The learner has prior arthroscopic motor skills practice.
- ◆ The learner has prior anatomical knowledge of the shoulder joint and the arthroscopic portals.

## Suggested Time Length

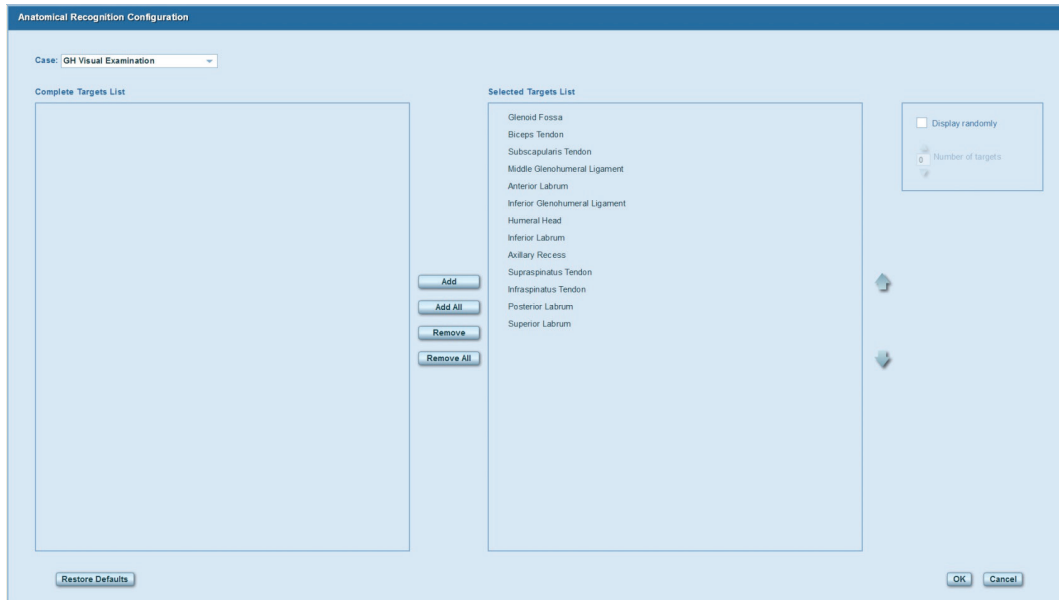
Completion of the entire course should take between 2-3 hours.

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# Curriculum Steps and Tasks Description

## Getting started- Anatomical Recognition Configuration



Set the targets as following:

### **GH Visual Examination:**

- ◆ Biceps Tendon
- ◆ Superior Labrum
- ◆ Posterior Labrum
- ◆ Axillary Recess
- ◆ Inferior Labrum
- ◆ Glenoid Fossa
- ◆ Supraspinatus Tendon
- ◆ Humeral Head
- ◆ Middle Glenohumeral Ligament
- ◆ Subscapularis Tendon
- ◆ Anterior Labrum
- ◆ Infraspinatus Tendon
- ◆ Inferior Glenohumeral Ligament

**GH Basic Probe Examination:**

- ◆ Biceps Tendon
- ◆ Superior Labrum
- ◆ Posterior Labrum
- ◆ Axillary Recess
- ◆ Inferior Labrum
- ◆ Glenoid Fossa
- ◆ Supraspinatus Tendon
- ◆ Humeral Head
- ◆ Superior Glenohumeral Ligament
- ◆ Middle Glenohumeral Ligament
- ◆ Subscapularis Tendon
- ◆ Anterior Labrum
- ◆ Infraspinatus Tendon
- ◆ Inferior Glenohumeral Ligament

**GH Advanced Probe Examination:**

- ◆ Biceps Tendon
- ◆ Superior Labrum
- ◆ Posterior Labrum
- ◆ Glenoid Fossa
- ◆ Humeral Head
- ◆ Middle Glenohumeral Ligament
- ◆ Subscapularis Tendon
- ◆ Anterior Labrum
- ◆ Inferior Glenohumeral Ligament

**SA Visual Examination:**

- ◆ Undersurface of the Acromion
- ◆ Coracoacromial Ligament
- ◆ Greater Tuberosity
- ◆ Critical Zone of Supraspinatus
- ◆ Critical Zone of Infraspinatus
- ◆ AC Joint

- ◆ Supraspinatus
- ◆ Infraspinatus
- ◆ Posterior Deltoid
- ◆ Subscapularis
- ◆ Anterior Deltoid
- ◆ Lateral Deltoid

**SA Basic Probe Examination:**

- ◆ Undersurface of the Acromion
- ◆ Coracoacromial Ligament
- ◆ Greater Tuberosity
- ◆ AC Joint
- ◆ Supraspinatus
- ◆ Infraspinatus
- ◆ Posterior Deltoid
- ◆ Subscapularis
- ◆ Anterior Deltoid
- ◆ Lateral Deltoid

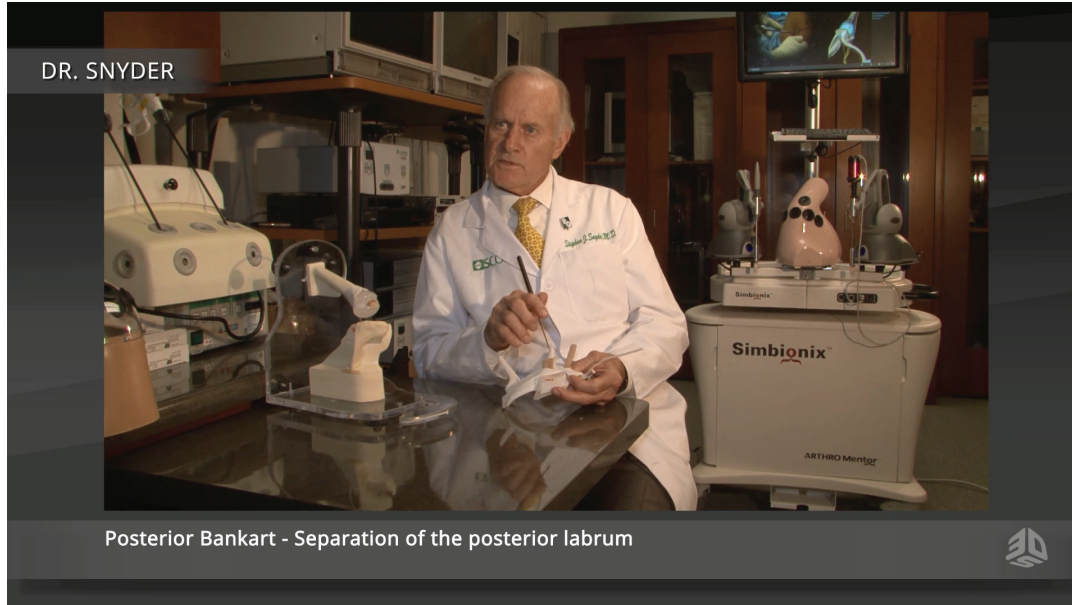
**SA Advanced Probe Examination:**

- ◆ Undersurface of the Acromion
- ◆ Attachment of Supraspinatus
- ◆ Critical Zone of Supraspinatus
- ◆ Attachment of Infraspinatus
- ◆ Critical Zone of Infraspinatus
- ◆ Supraspinatus
- ◆ Infraspinatus

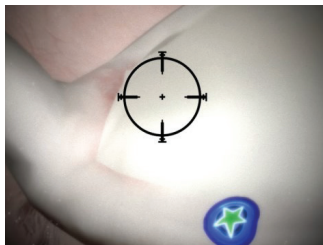
## Diagnostic examination of the Glenohumeral joint

### Didactics

#### How to perform a systematic examination of the Glenohumeral joint



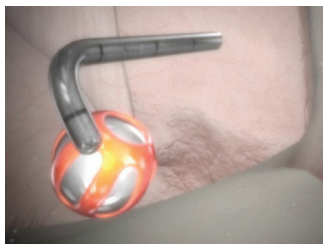
### Hands on



#### GH Visual examination:

##### Task Description

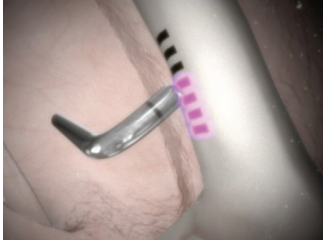
- ◆ Insert the camera into one of the portals.
- ◆ Follow the instructions and locate the targets next on the stated structures. If needed, insert the camera through a different portal to obtain better visualization.
- ◆ Place the center of the viewfinder on the target, and hold the camera steady for 2 seconds until the target disappears.
- ◆ Repeat steps 2-3 for the next structures until the completion of the task.



#### GH basic probe examination

##### Task Description

- ◆ Insert the camera into one of the portals. Insert the probe into another portal.
- ◆ Follow the instructions and locate the target next to the stated structure. If needed, insert the camera into a different portal to obtain better visualization.
- ◆ Probe the target for 2 seconds until the target disappears. If needed, insert the probe into a different portal to obtain better access.
- ◆ Repeat steps 2-3 for the next targets until the completion of the task.



### GH advanced probe examination

#### Task Description

- ◆ Insert the camera into one of the portals.
- ◆ Follow the instructions and locate the target on the stated structure. If needed, insert the camera into a different portal to obtain better visualization.
- ◆ Insert the probe into a portal with convenient access to the target and probe the line from end to end, until it disappears.
- ◆ Repeat steps 2-3 for the next targets until the completion of the task.



### GH Case 1-5 and Random Case

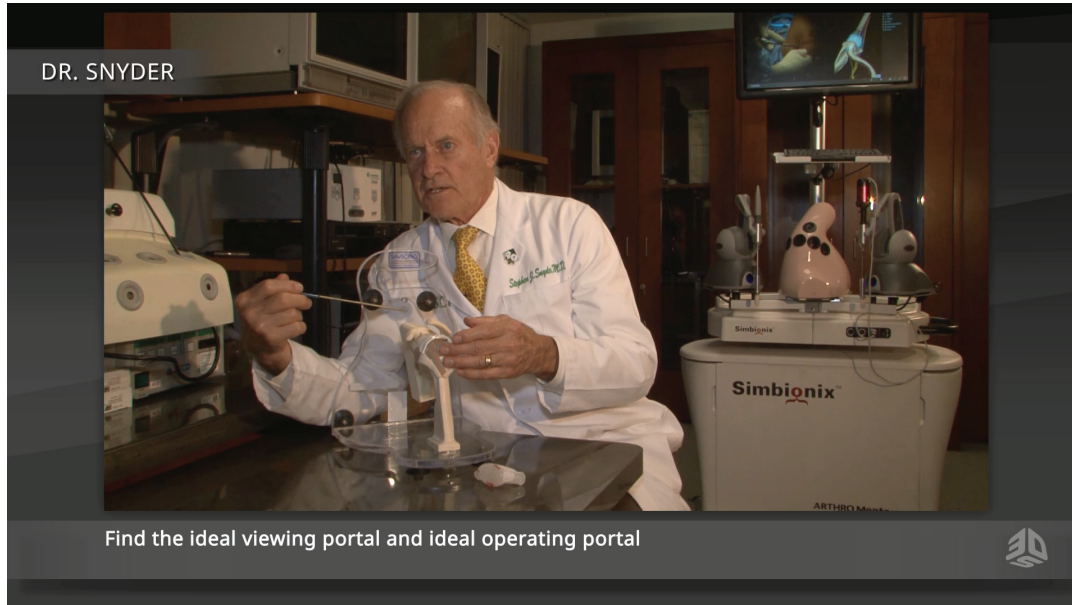
#### Task Description

- ◆ Perform a diagnostic examination of the shoulder joint.
- ◆ Use the pedal to take pictures of identified pathologies.
- ◆ Open the Trainee Report and describe the pathology that was documented in each picture.

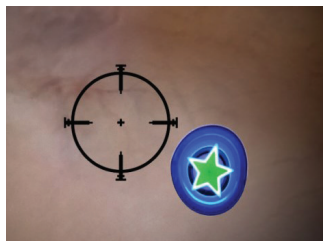
## Diagnostic examination of the Subacromial Space

### Didactics

#### How to perform a systematic examination of the Subacromial space



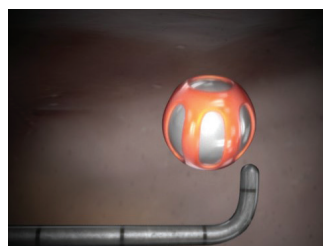
### Hands on



#### SA Visual examination

##### Task Description

- ◆ Insert the camera into one of the portals.
- ◆ Follow the instructions and locate the targets next on the stated structures. If needed, insert the camera through a different portal to obtain better visualization.
- ◆ Place the center of the viewfinder on the target, and hold the camera steady for 2 seconds until the target disappears.
- ◆ Repeat steps 2-3 for the next structures until the completion of the task.

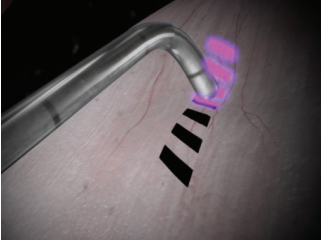


#### SA basic probe examination

##### Task Description

- ◆ Insert the camera into one of the portals. Insert the probe into another portal.
- ◆ Follow the instructions and locate the target next to the stated structure. If needed, insert the camera into a different portal to obtain better visualization.
- ◆ Probe the target for 2 seconds until the target disappears. If needed, insert the probe into a different portal to obtain better access.
- ◆ Repeat steps 2-3 for the next targets until the completion of the task.





### SA advanced probe examination

#### Task Description

- ◆ Insert the camera into one of the portals.
- ◆ Follow the instructions and locate the target on the stated structure. If needed, insert the camera into a different portal to obtain better visualization.
- ◆ Insert the probe into a portal with convenient access to the target and probe the line from end to end, until it disappears.
- ◆ Repeat steps 2-3 for the next targets until the completion of the task.



### SA Case 1-4 and Random Case

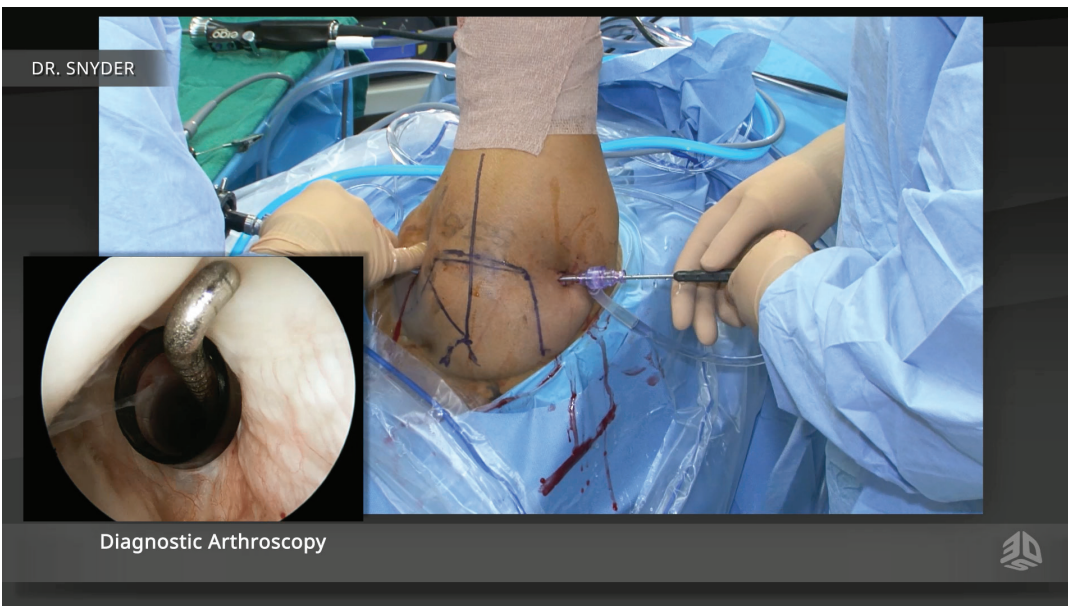
#### Task Description

- ◆ Perform a diagnostic examination of the Subacromial Space.
- ◆ Use the pedal to take pictures of identified pathologies.
- ◆ Open the Trainee Report and describe the pathology that was documented in each picture.

## Subacromial Decompression

### Didactics

#### OR Part 1: Portals Establishment, Diagnostic Arthroscopy and Bursoscopy





### OR Part 2: Bursa Shaving and Soft Tissue Removal



### OR Part 3: Acromion Resection and Distal Clavicle Resection



## Subacromial Decompression Simulation Tutorial



## Hands On



### Subacromial Decompression

#### Task Description:

- ◆ Insert the camera and scan the Subacromial space. Use a probe to perform a diagnostic examination.
- ◆ Insert an ablation wand and use the left pedal to ablate soft tissue and expose the undersurface of the acromion.
- ◆ Insert an electrical burr and position it on the undersurface of the acromion.
- ◆ Activate the burr using the left pedal, and carefully resect the acromial bone spur. Use the right pedal to activate the suction and remove the debris.
- ◆ In case of bleeding, use the ablation wand (right pedal) for coagulation.