Go to the HPD Library homepage at [www.nova.edu/hpdlibrary](http://www.nova.edu/hpdlibrary) and select the Medical Sonography guide.

Click on the Images & Multimedia tab
Click on the link for SIMTICS

Log-in with your SharkLink ID and password

Disclaimer

Access to electronic resources varies depending on whether:
You are an active NSU student, faculty, or staff; a registered Broward County patron; registered alumni; a University School patron; an HPD Clinical Faculty member; or a walk-in user.
You are in the library, elsewhere on campus, or off campus
Create an account in SIMTICS using your NSU email.

You will receive a confirmation email. Go to the email from SIMTICS and click on the link to confirm your registration.

*Thanks for signing up and welcome to the world of SIMTICS online learning!*

**Please click to confirm your registration**

For future reference, when you want to log in next time, go to [www.simtics.com](http://www.simtics.com) and click on Log In. Use your email address and the password you selected when you registered. Then click on "Hello" to view your account details.

See you online!

Kind regards

SIMTICS
Now when you want to access SIMTICS, go to the Medical Sonography Library guide and click on the link for SIMTICS (listed under the Images & Multimedia tab) and log-in with your NSU Sharklink ID and password. Then click on “LOGIN” and login with your email and SIMTICS password that you created.

To add modules to your library, click on “Shop Now”
Browse the list and select the module that you would like to view. Click on “Buy now $25”. Yes, there will be a dollar amount listed!

On the next screen, you will now see the cost of the module as $0. Click on “Confirm Purchase”.
Now, click on “Launch”

Next click on “accept”
You have the option of watching a SIMTICS tutorial.

Click on the name of the module, to open it.
Explore the module.

Ultrasound of the Spleen

Introduction

Learning objectives
Key terminology

Preprocedure considerations

Basic physiology of the spleen

The main function of the spleen is to circulate erythrocytes (red blood cells), fight infection, and filter blood, removing unwanted material.

Circulation in the spleen is via the splenic artery, which brings blood to the spleen. The splenic artery branches into several smaller arteries to supply the spleen with oxygenated blood. The spleen is a soft organ that distends as blood fills the venous sinuses. Blood leaves the spleen via the splenic vein.

The normal spleen contains about 20 to 30 mL of erythrocytes. Platelets are stored (sequestered) in the spleen.

The spleen is the largest organ in the reticuloendothelial system and plays a role in metabolic, hematopoietic and infectious disorders. It is rarely the primary site of disease but is often affected by systemic disease processes. As part of the reticuloendothelial system the spleen produces lymphocytes, plasma cells, and antibodies. It stores iron and other metabolites.

The spleen is made up of two types of tissue:

- White pulp (lymphoid tissue)
- Red pulp (red blood cells and reticulum cells)

The white pulp produces lymphocytes that produce antibodies to fight infection in the body. The lymphocytes are responsible for immune responses.