



# NCC Pediatrics Continuity Clinic Curriculum: **Operational Medicine: National Museum of Health and Medicine**



## **Goals & Objectives:**

*To explore the history, research, and advancement of military and civilian medicine through world class collections and digital technology. Learn about a variety of topics ranging from combat casualty care and traumatic brain injury to the history of vaccine development and techniques in forensic identification.*

## **Pre-Meeting Preparation:**

*Please read the following enclosures:*

- Group Assignments
- Visitor Instructions
- What to Expect
- **National Museum of Health and Medicine** official website

## **Conference Agenda:**

The **tour begins at 1400** on your assigned day. Don't be late! We will meet in the continuity education room at 1200 and then drive/carpool to a lunch spot before the tour officially starts.

## Group Assignments:

### **Tuesday, 16MAY2023**

Faculty: Bumgardner, Lopreiato, May Broughton

Kondiles

Mauro

Caballero

Ferraro

Howard

Davis

Martin

Warren

### **Wednesday, 17MAY2023**

Faculty: Carr, Hepps, Schacht

Bennett

Rahman

Reddington

Gheri

Hasler

Lucido

Liggett

McNamara

### **Thursday, 18MAY2023**

Faculty: Bumgardner, Lopreiato

Graziose

Goetzman

Zven

Meyers

Molter

Patel

Sukenaga

Westbrook

Wilson

## **SECURITY ON BASE**

When visiting the museum's collections or administrative offices, please be mindful that you will be coming on to a US military base and must comply with all security procedures. In order to meet with staff, you must enter the base through the Brookville Ave gate, instead of using the public museum entrance. Pre-vetted individuals will be required to show their driver's license to receive the visitors pass and entrance to the installation.

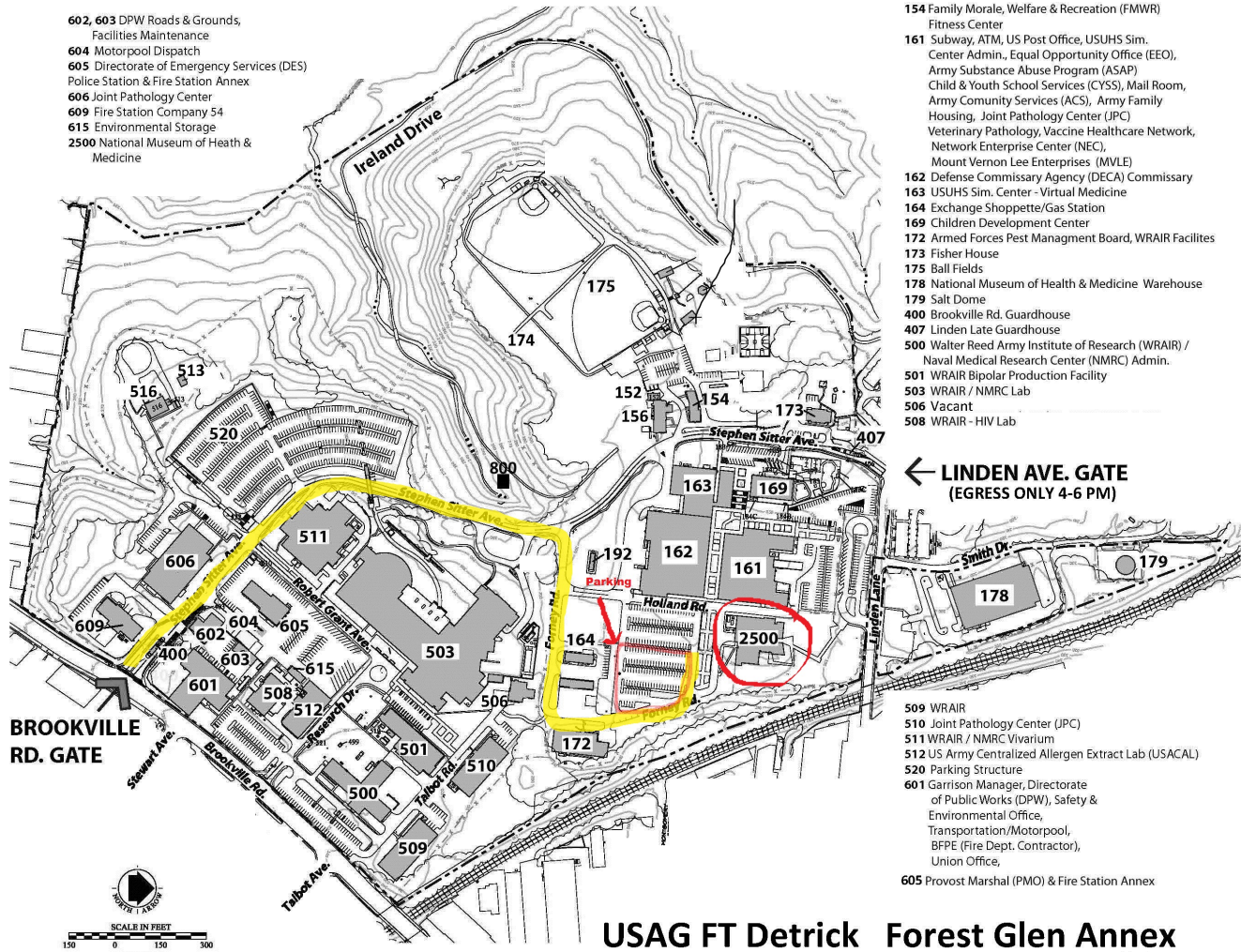
Here's what to expect if you have not been pre-vetted:

- At the gate you will be stopped by security guards and will be directed to pull your car over to a nearby inspection area.
- Guards will ask to see your driver's license, car registration, and proof of insurance. They will use that information to run a brief background check, similar to the kind that is run by police at a traffic stop. If any of the documents are not current they will deny entrance to the base.
- Guards may also want to do a cursory inspection of your vehicle, such as looking in the trunk or undercarriage. The entire process will take 15 minutes at a minimum and possibly longer during peak hours.
- You will be directed to acquire a Visitor Pass at the Visitor Center (Building 605 located next to the Police Station). The office is the first door on the right. This may take up to 10 minutes per individual.

There are different security protocols in place for non-US citizens and please note that that paperwork and approval requires four to six weeks to process. Please let your NMHM POC know if those circumstances apply to you, and do not hesitate to follow-up with any questions. If you take a taxi or shuttle, be sure to confirm that they are willing to come onto a military post, as the same security protocols will apply.

## **DIRECTIONS**

In order to get on base, we suggest mapping directions to 8998 Brookville Rd. Silver Spring, MD 20910 (this is the location of the Forest Glen Visitors Center). This will take you to the Brookville Ave gate. There's only one road that goes through the base, so stay on it past the big yellow and blue building, which is on your right as you come to the first stop sign (which is at Robert Grant Ave). You'll go down a small hill (which runs behind the yellow and blue building) and as you go up the hill, take a right on Forney Road, which has a sign for the Commissary. After a quick left, you'll come to the parking lot. The museum's parking area is close to the perimeter fence, behind the first 4 rows of Commissary parking. The museum is a tan building and you will need to ring the doorbell at the back door. You'll be asked to sign in and a staff member will come get you. Be mindful of the 15MPH speed limit - it is strictly enforced.



- 602, 603 DPW Roads & Grounds, Facilities Maintenance
- 604 Motorpool Dispatch
- 605 Directorate of Emergency Services (DES) Police Station & Fire Station Annex
- 606 Joint Pathology Center
- 609 Fire Station Company 54
- 615 Environmental Storage
- 2500 National Museum of Health & Medicine

- 154 Family Morale, Welfare & Recreation (FMWR) Fitness Center
- 161 Subway, ATM, US Post Office, USUHS Sim. Center Admin., Equal Opportunity Office (EEO), Army Substance Abuse Program (ASAP) Child & Youth School Services (CYSS), Mail Room, Army Community Services (ACS), Army Family Housing, Joint Pathology Center (JPC) Veterinary Pathology, Vaccine Healthcare Network, Network Enterprise Center (NEC), Mount Vernon Lee Enterprises (MVLE)
- 162 Defense Commissary Agency (DECA) Commissary
- 163 USUHS Sim. Center - Virtual Medicine
- 164 Exchange Shopette/Gas Station
- 169 Children Development Center
- 172 Armed Forces Pest Management Board, WRAIR Facilities
- 173 Fisher House
- 175 Ball Fields
- 178 National Museum of Health & Medicine Warehouse
- 179 Salt Dome
- 400 Brookville Rd. Guardhouse
- 407 Linden Lane Guardhouse
- 500 Walter Reed Army Institute of Research (WRAIR) / Naval Medical Research Center (NMRC) Admin.
- 501 WRAIR Bipolar Production Facility
- 503 WRAIR / NMRC Lab
- 506 Vacant
- 508 WRAIR - HIV Lab

← **LINDEN AVE. GATE**  
(EGRESS ONLY 4-6 PM)

**BROOKVILLE RD. GATE**

- 509 WRAIR
- 510 Joint Pathology Center (JPC)
- 511 WRAIR / NMRC Vivarium
- 512 US Army Centralized Allergen Extract Lab (USACAL)
- 520 Parking Structure
- 601 Garrison Manager, Directorate of Public Works (DPW), Safety & Environmental Office, Transportation/Motorpool, BFPE (Fire Dept. Contractor), Union Office,
- 605 Provost Marshal (PMO) & Fire Station Annex



## USAG FT Detrick Forest Glen Annex



# National Museum of Health and Medicine: What to Expect



**“...this is ... a museum about the triumphs of medicine, especially military medicine.”**

*The Washington Post, Oct. 24, 2008*



# We are the nation's medical museum



**Mission:** To preserve and explore the impact of military medicine.

**Vision:** To preserve, inspire, and inform the history, research, and advancement of military and civilian medicine through world-class collections, digital technology and public engagement.

The exhibits of the museum will show challenges and innovations related to military medicine, including trauma, pathology, and surgery through real human remains, models, images, and related artifacts.

# Welcome to the National Museum of Health and Medicine



**Museum Entrance Sign**



**Museum Entrance Walkway**

**Please leave backpacks and large bags  
in the car or bus.**

# Welcome to the National Museum of Health and Medicine



## ■ No...

- Flash photography
- Food or drinks in the galleries



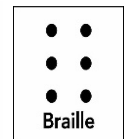


# Accessibility Information



The museum is committed to accessibility for all visitors.

- Wheelchairs and light-weight stools are available free of charge on a first-come, first-served basis from the Information Desk. The museum also welcomes personal walkers, wheelchairs, and scooters.
- ASL Interpretation can be provided for tours or public programs upon request. Requests must be placed at least two weeks in advance.
- Service animals are welcome in the museum.



# Pick up these items at the reception desk...



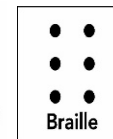
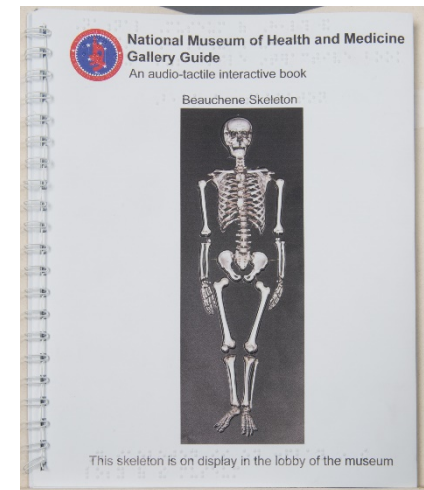
## Mini Medic Bags

- Mini Medic Bags are messenger bags filled with activities for children ages 3-7 to enhance a self-guided tour
- Ask for a bag at the museum's reception desk or call ahead to reserve one for your visit
- Bags are limited in number and are available free of charge
- Activities:
  - Lab coat
  - Mini Med School Reading Activity
  - Anatomy Puzzle & Matching Game
  - Observe and Record Activity
  - Stars and Fibers
  - Stitch it up!

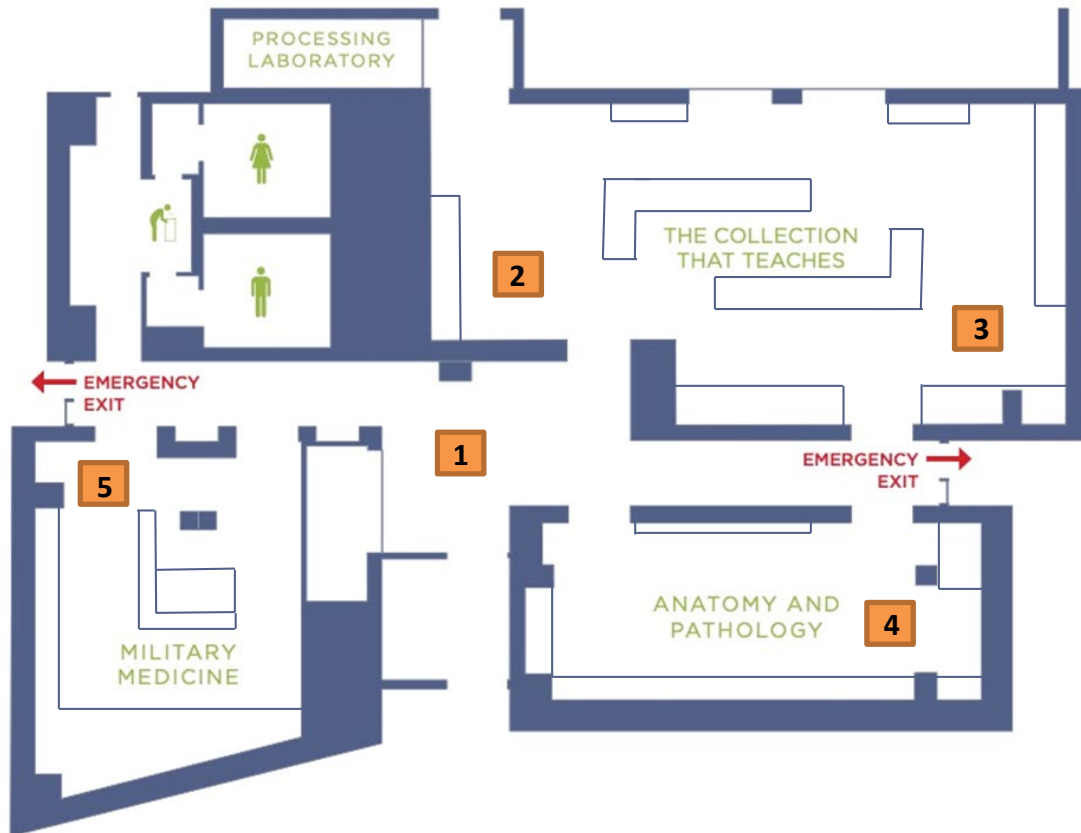


## Audio-Tactile Guide

- Booklet and audio pen for the visually-impaired help guide visitors through the museum galleries, providing information on highlighted objects
- Guide includes booklet with braille and large print text, raised lines and textures on images, and a corresponding smart pen provides descriptive audio of text and images
- Exhibit Highlights:
  - Balad Floor
  - DEKA Arm System
  - Walter Reed
  - WWI Watercolor
  - General Sickles' Leg
  - Lincoln Artifacts
  - Elephantiasis Leg
  - Artificial Kidney



# Gallery Tours



## Tour Path:

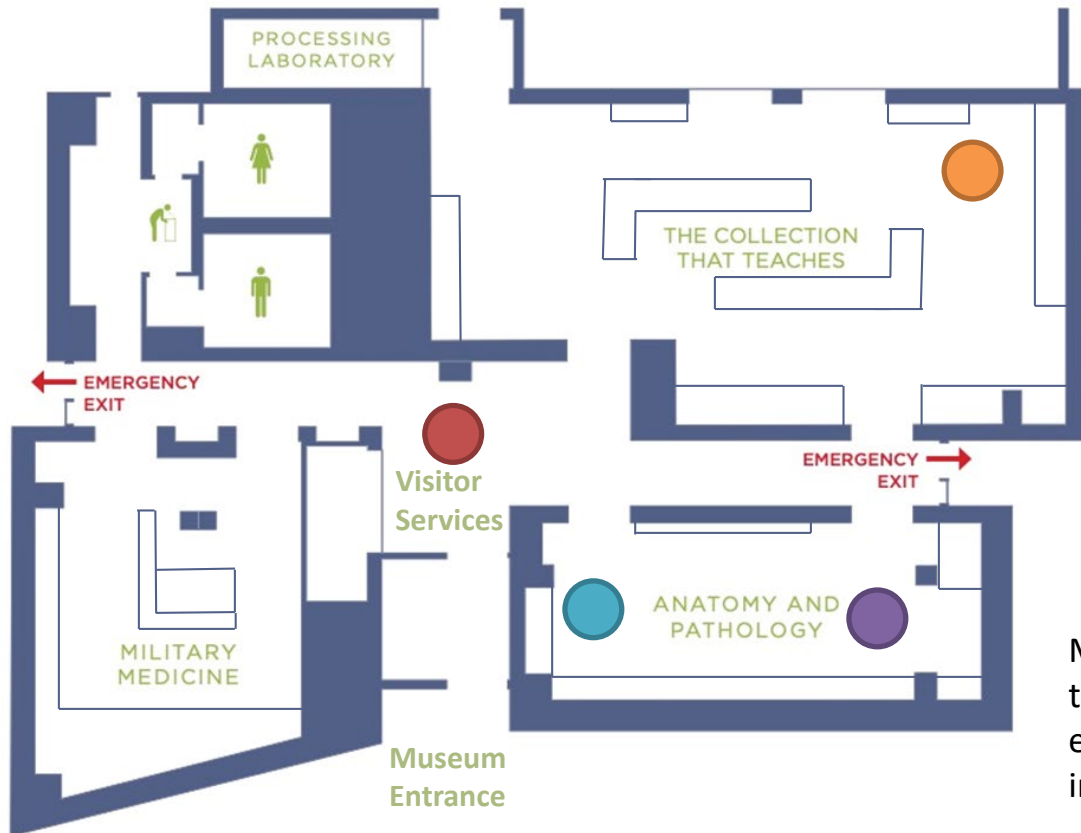
General Tour (*40 people max*)

- 1** Meeting place
- 2** Start of tour
- 5** End of tour





If group is larger than 10, the group will be split into separate smaller groups each starting at a different number and rotating. One volunteer docent can accommodate 10-12 people.

# Gallery Experiences

\*Gallery experiences must be scheduled in advance.



## Experience Locations:

-  Introduction and Discovery Carts (*50 people max*)
-  Forensics Workshop (*30 max*)
-  Human Body Program (*20 max*)
-  Empathy Belly (*35 max*)

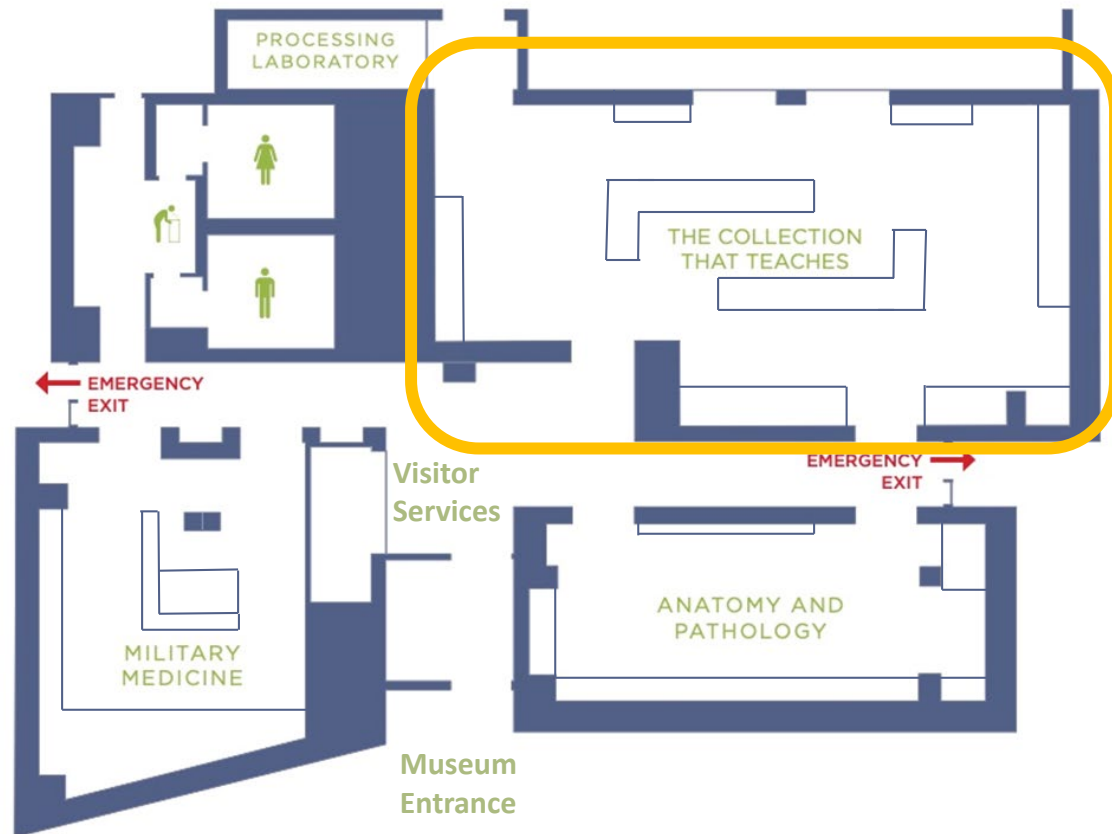
Museum galleries occupy 4,000 square feet. Due to space limitations and resources, number of experiences are limited per group. Call for more information.

# Galleries: The Collection That Teaches



## ■ The Collection That Teaches

- ☐ Topics include Civil War medicine, the assassination of President Abraham Lincoln, human identification, biomedical engineering, human pathology, and chemical warfare during World War I



# The Collection That Teaches

**THE COLLECTION THAT TEACHES**  
**HISTORY AND RESEARCH**

I HAVE NUMEROUS SPECIMENS FOR YOU—  
HAVE PUT THEM IN ALE BARRELS WITH SOME  
WHISKY + CHLORINATED SODA UPON THEM +  
HAVE BURIED BARRELS AND ALL IN  
THE GROUND.  
WHAT SHALL I DO WITH THEM? WE WILL HAVE  
MORE EVERY DAY FOR A MONTH TO COME.

H. H. NEFF, SURGEON, 3RD DIVISION GENERAL HOSPITAL, AUGUST 9, 1862

The National Museum of Health and Medicine began collecting objects in 1862 after the Army Medical Department ordered that “all specimens of morbid anatomy” be gathered from Civil War battlefields. Since then, the Museum’s holdings have grown to more than 25,000,000 specimens, slides, photographs, artifacts, artworks, and documents. While only a fraction is on display, all collections contribute to medical and historical research.



## Civil War Collections



**Civil War Collections**

# The Collection That Teaches



**Civil War Collections**

## Biomedical Engineering



# The Collection That Teaches



**Pathological Specimens**

## Human Identification

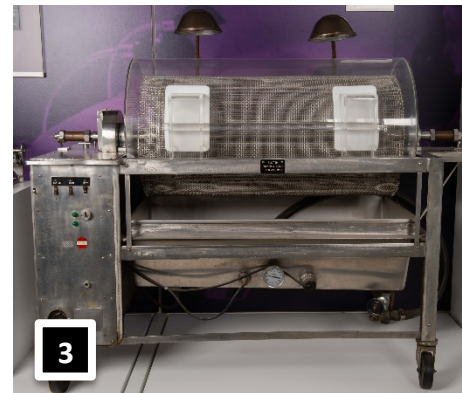




# The Collection That Teaches

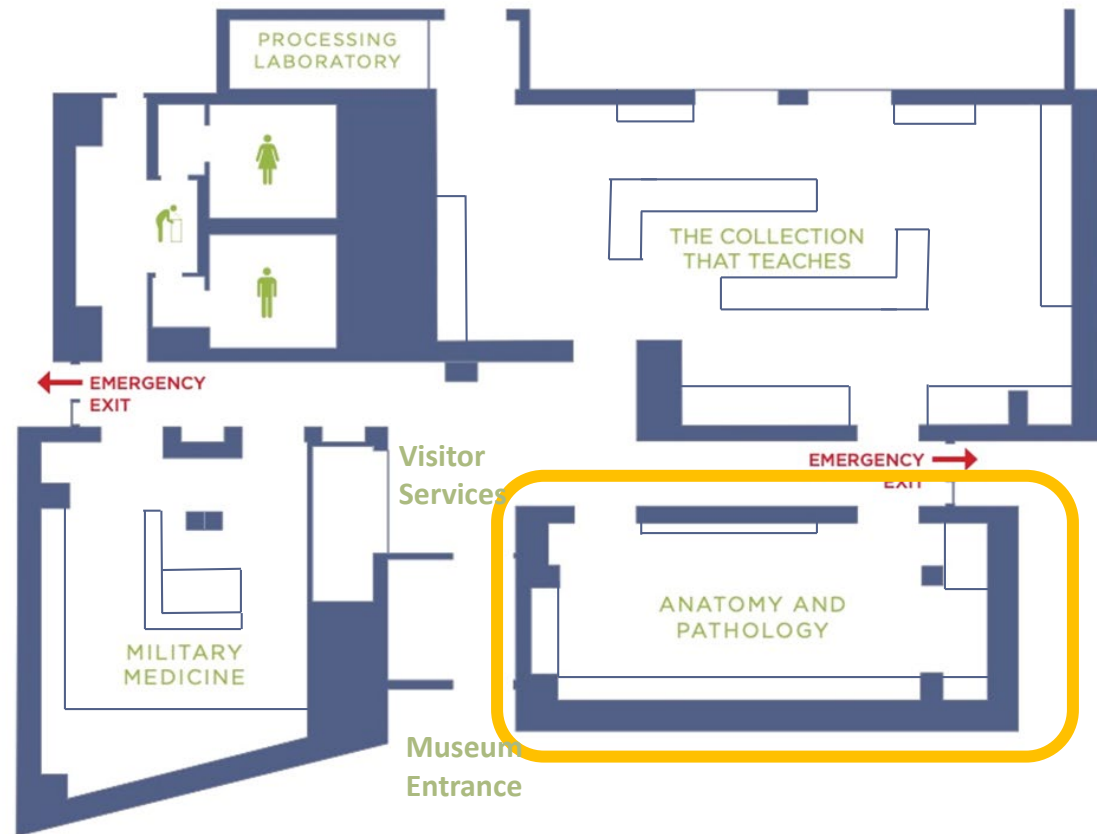
## *Artifact and Specimen Examples:*

1. Carcinoma, Smoker's Lung
2. Leg, Elephantiasis
3. Kolff-Brigham Artificial Kidney
4. Hooke Microscope
5. Bullet that killed President Abraham Lincoln
6. Tibia and Fibula of Maj. Gen. Daniel E. Sickles with 12-pound Solid Shot



# Galleries: The Human Body

- The Human Body:  
Anatomy and  
Pathology
  - A display of anatomical specimens that show normal anatomy and the pathology of traumatic brain injury



# The Human Body: Anatomy and Pathology



**Brain Specimens**

## Special Program



# The Human Body: Anatomy and Pathology



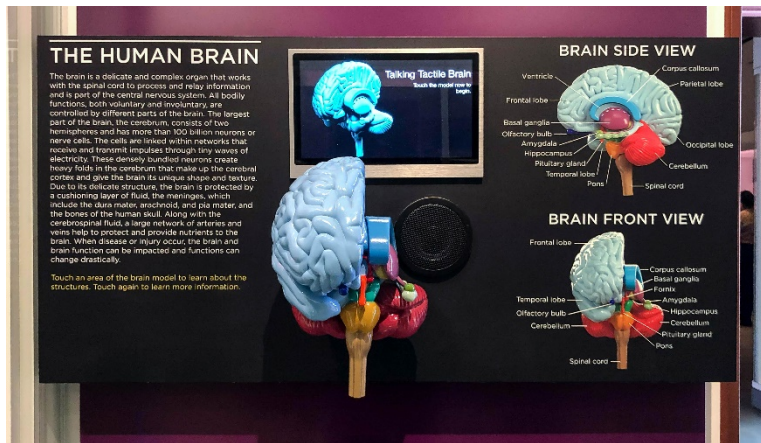
**General Anatomy**

## Skeletal Development



# The Human Body: Anatomy and Pathology

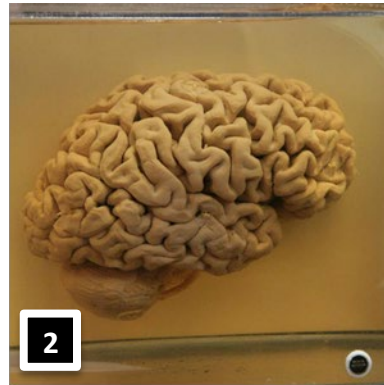
## Traumatic Brain Injury



## Tactile Brain

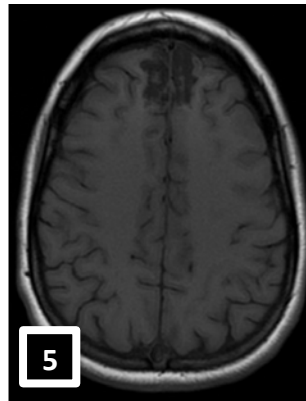
Interactive brain model and monitor that provides descriptive audio and text about each part of the brain.

# The Human Body: Anatomy and Pathology



## *Artifact and Specimen Examples:*

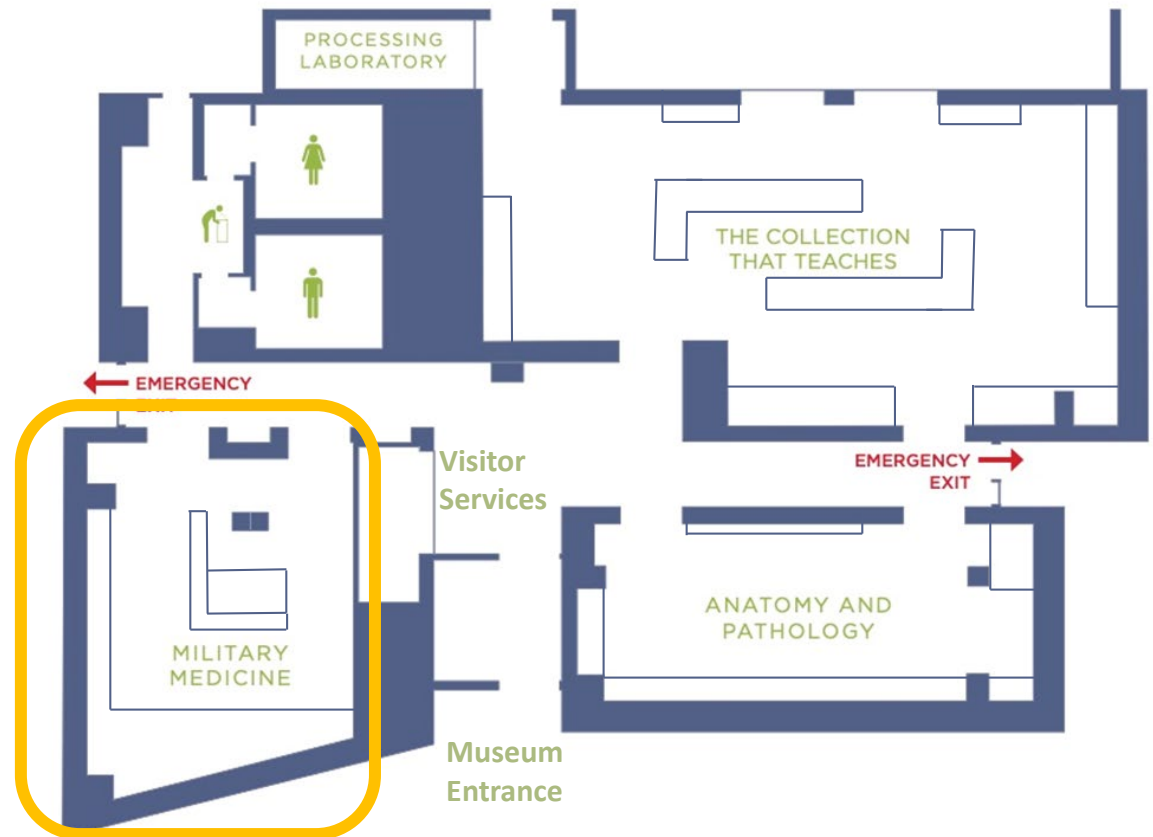
1. Discovery Cart:  
Plastinated Organs  
*\*Upon Request\**
2. Brain
3. Xbox Used by TBI  
Patients at Walter Reed  
Army Medical Center
4. Hands Displaying  
Muscles and Ligaments
5. Brain Scan
6. Brain, Papier-mâché,  
made by Auzoux, 1901



# Galleries: Military Medicine

## ■ Military Medicine: Challenges and Innovations

- ❑ Artifacts relating to military medicine in protecting, repairing, and rehabilitating service members



# Military Medicine: Challenges and Innovations



**Object Theater Interviews**

## Facial Reconstruction and Medical Instruments





# Military Medicine: Challenges and Innovations



**Facial Reconstruction & Trauma  
Bay II**



# Military Medicine: Challenges and Innovations



## *Artifact and Specimen Examples:*

1. Model 1917 Helmet
2. Two Plaster Life Masks Exhibiting Face Wounds and Reconstruction, Civil War Era
3. Plaster Life Masks Exhibiting Face Wounds and Reconstruction, World War II
4. “LUKE” DEKA Arm System, Generation II Prototype, 2008
5. Special Medical Emergency Evacuation Device (SMEED)

# Contact Us



## National Museum of Health and Medicine

2500 Linden Lane  
Silver Spring, Maryland 20910

For general information or questions contact:  
301-319-3300

To book an experience or tour contact:  
301-319-3312



**@MedicalMuseum**