



# **UNITED DIAGNOSTIC SERVICES**

Service Line Report





- Founded in 2001
- Nationally accredited Company and Staff
- Manage and Operate Hospital Networks, Primary Care and Multi-Specialty Clinics
- Started Diagnostic Health Program for First Responders in 2017

# Our Accreditations











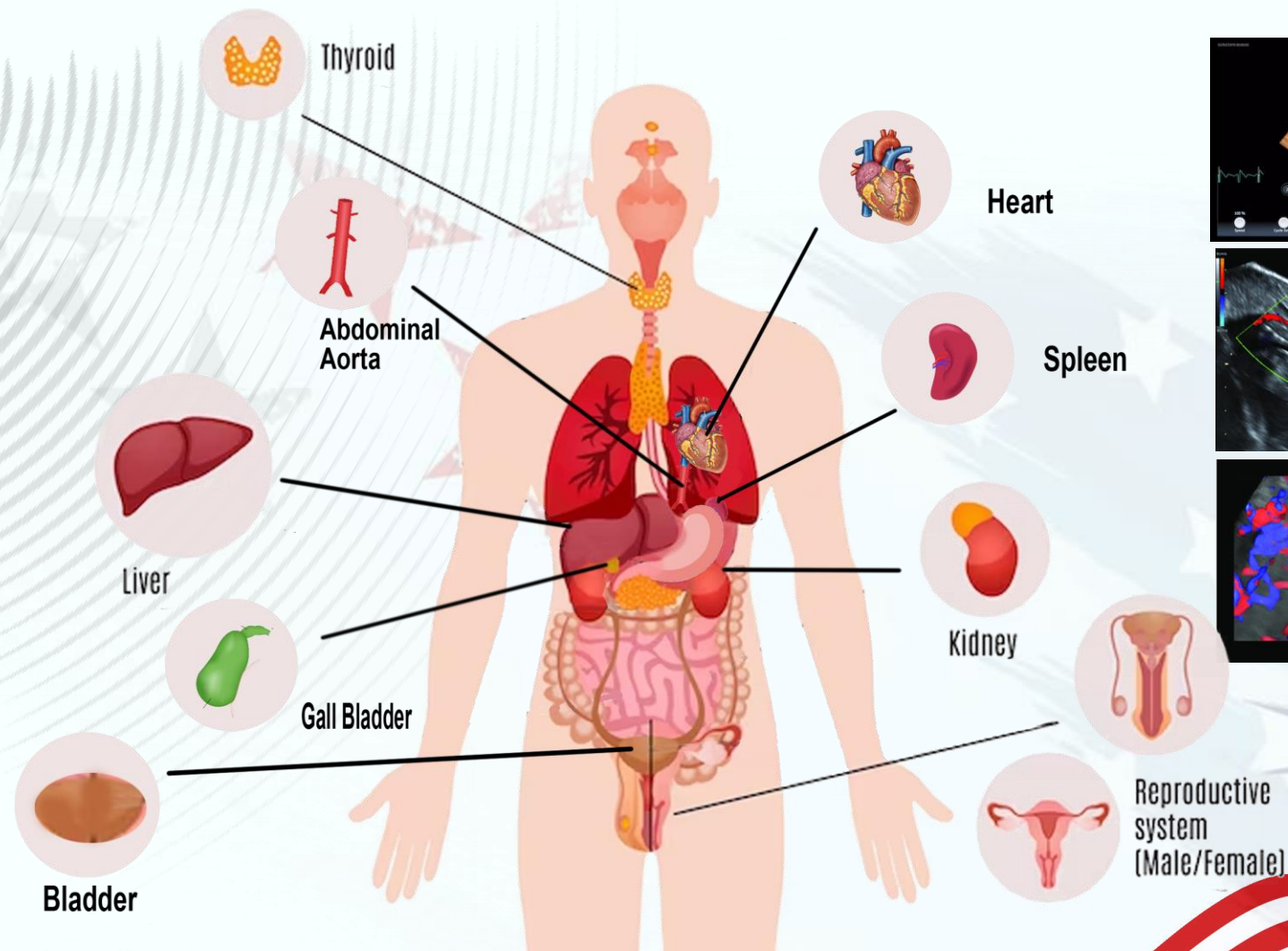
An American flag flies over the rubble of the World Trade Center in New York after the Sept. 11 attacks. Beth A. Keiser / AP

# Revolutionizing Early Detection Health Screening ...

9 organs and body parts in a 30 min scan to provide quality and detecting Actionable Pathologies and Abnormalities!

## Tests include...

- Echocardiogram
- Carotid Doppler
- Abdominal Aorta
- Thyroid
- Liver
- Gall Bladder
- Spleen
- Bladder
- Kidney
- Testicular
- Exterior Pelvic Scan for Females





# Ultrasound

- ❖ Works via high-frequency sound waves
- ❖ No radiation
- ❖ Non-invasive
- ❖ Real-time body images
- ❖ Portable



We deploy comprehensive diagnostic health programs to detect:

- Actionable pathologies
- Cardiovascular disease
- Occupational cancer

These tests are deployed by registered UDS professionals that are specifically designed for early diagnosis and treatment.



# UDS On-Site Set Up



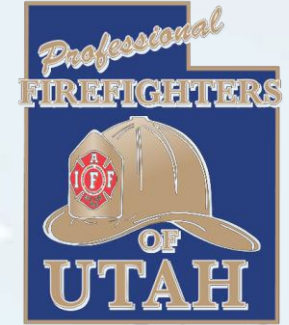


## Generating Results for...





# A Deep Network Of Partners



*"Protecting the Rights of Utah's Firefighters."*

# Increased Risk in Cancers and Cardiovascular Disease

## Firefighter Cancer-Troubling Stats

- 14 % higher risk of dying from than U.S. adult population
- BFD even higher:
  - New cancer case every 3 weeks
  - 20 Boston firefighters last year
  - 3 recent deaths from
  - Several more with advanced disease:



Dr Michael Hamrock



# IARC MONOGRAPHS VOL. 132: OCCUPATIONAL EXPOSURE AS A FIREFIGHTER

Occupational exposure as a firefighter is **carcinogenic to humans (Group 1)**

on the basis of

**sufficient evidence for cancer in humans**



The *IARC Monographs* classification indicates the level of certainty that an agent can cause cancer (*hazard identification*)

Higher level of certainty

Lower level of certainty

Cancer types with **sufficient evidence** for cancer in humans:



Mesothelioma



Bladder cancer

Cancer types with **limited evidence** for cancer in humans:



Colon cancer



Prostate cancer



Testicular cancer



Melanoma of the skin



Non-Hodgkin lymphoma

**Strong mechanistic evidence in exposed firefighters**



Genotoxicity



Epigenetic alterations



Oxidative stress



Chronic inflammation



Modulation of receptor-mediated effects



Exposures of firefighters include combustion products, diesel exhaust, building materials, asbestos, chemicals, shift work, ultraviolet radiation



**Firefighters respond to various types of fire**



Structure



Wildland



Vehicle

# IAFF and American Cancer Society







## Body Weight & Cancer Risk

In the United States, the percentage of overweight and obese adults and children has soared over the past several decades. Studies show that with that increased weight comes an increased risk of developing certain types of cancers.

**EXCESS BODY WEIGHT,  
POOR NUTRITION, PHYSICAL INACTIVITY,  
AND EXCESS ALCOHOL CONSUMPTION**

**= ABOUT**

**1 IN 5 CANCER CASES**

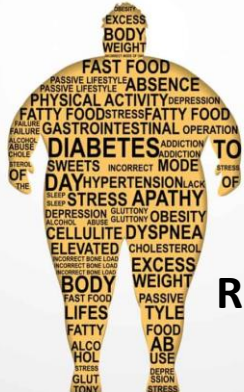




# Examining the Relationship Between Obesity and Cancer Risk

## Obesity, Diabetes, and Cancer

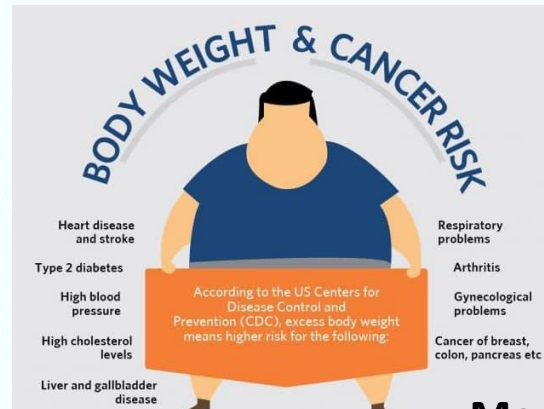
- Global rise in obesity and type 2 diabetes.
- Linked to liver, pancreatic, and esophageal cancers.



## Risks of Extreme Obesity

**Men:** 52% higher death risk.

**Women:** 62% higher death risk.



## Mechanisms Linking Obesity to Cancer

### **Inflammation and Insulin Resistance:**

Chronic inflammation induces cells to become cancerous.

**Hormonal Changes:** Changes in estrogen levels.

**Immune Surveillance:** Impaired ability to detect and destroy cancer cells.

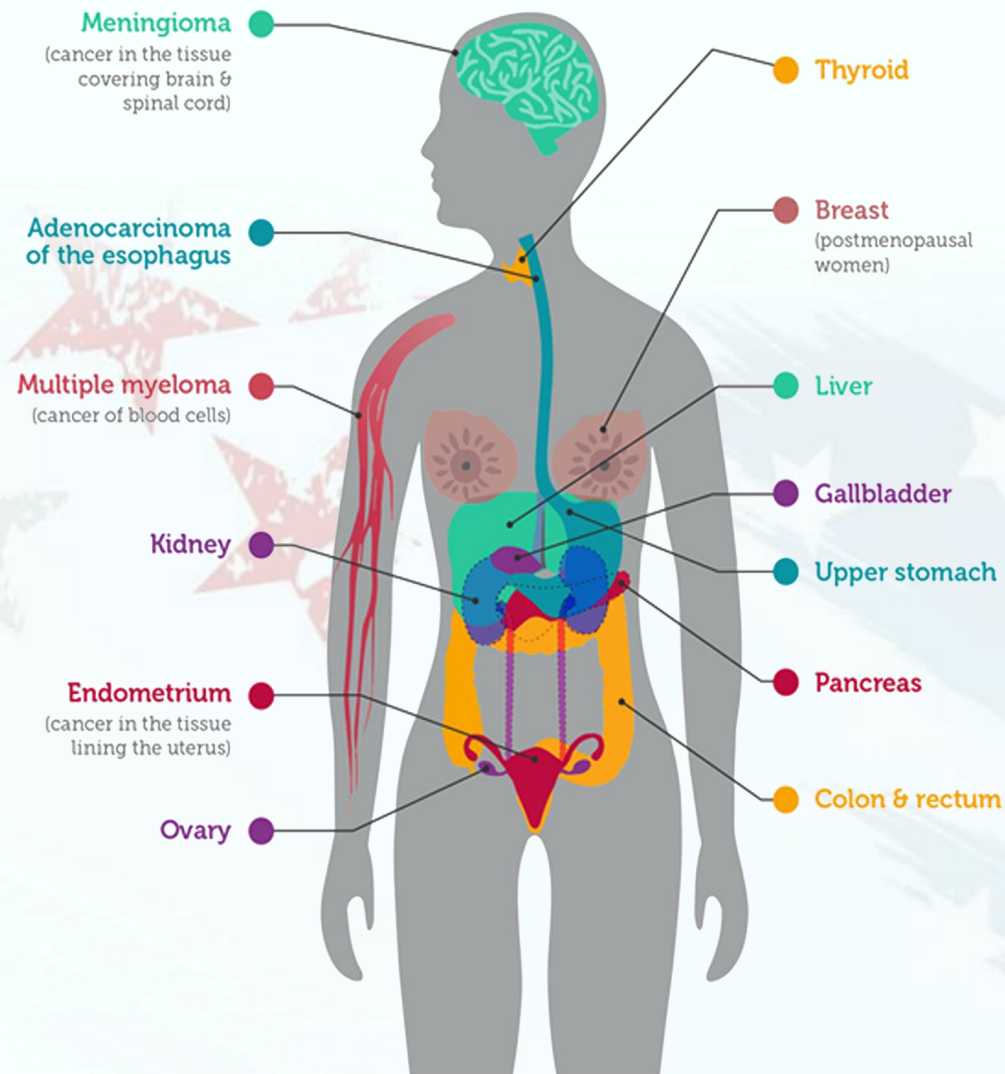
## American Cancer Society

- Second largest risk factor after smoking.
- 12-13% of all cancer cases globally.
- Links to 13 types of cancer.



NATIONAL CANCER INSTITUTE

## Cancers Associated with Overweight & Obesity





## OCCUPATIONAL HEALTH RISK

- Combustion of flame retardants
- Smoldering plastics and synthetics
- Diesel exhaust fumes and particles
- Overnight shifts (Disrupt circadian rhythm)
- Excess weight and obesity
- Cumulative stresses

### **PFAS (polyfluoroalkyl substances):**

- In FF foam
- In FF gear





**9%** Firefighters have a greater risk<sup>2</sup>

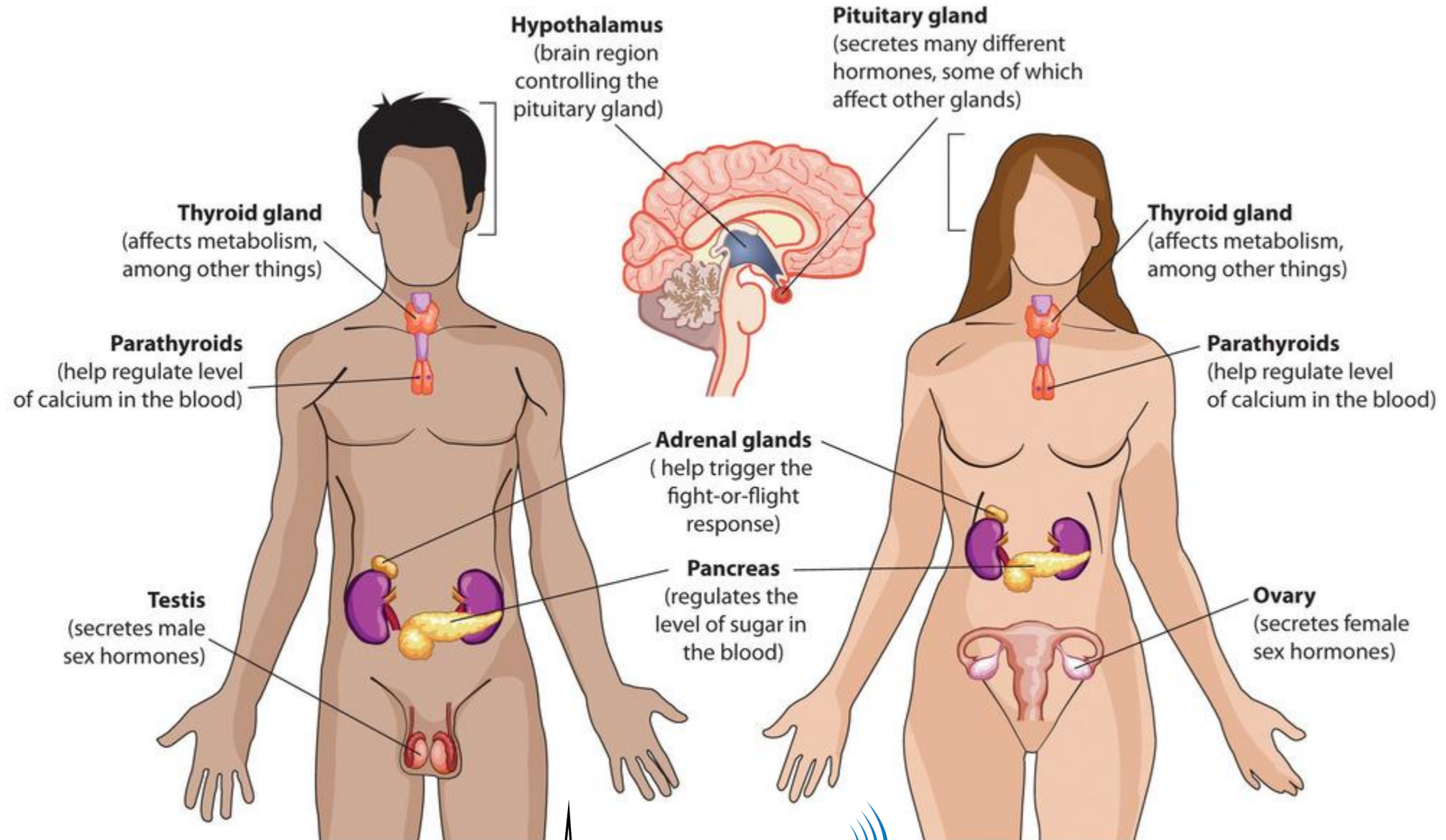
**14%** Firefighter mortality once diagnosed<sup>2</sup>

*1 - National Cancer Institute*

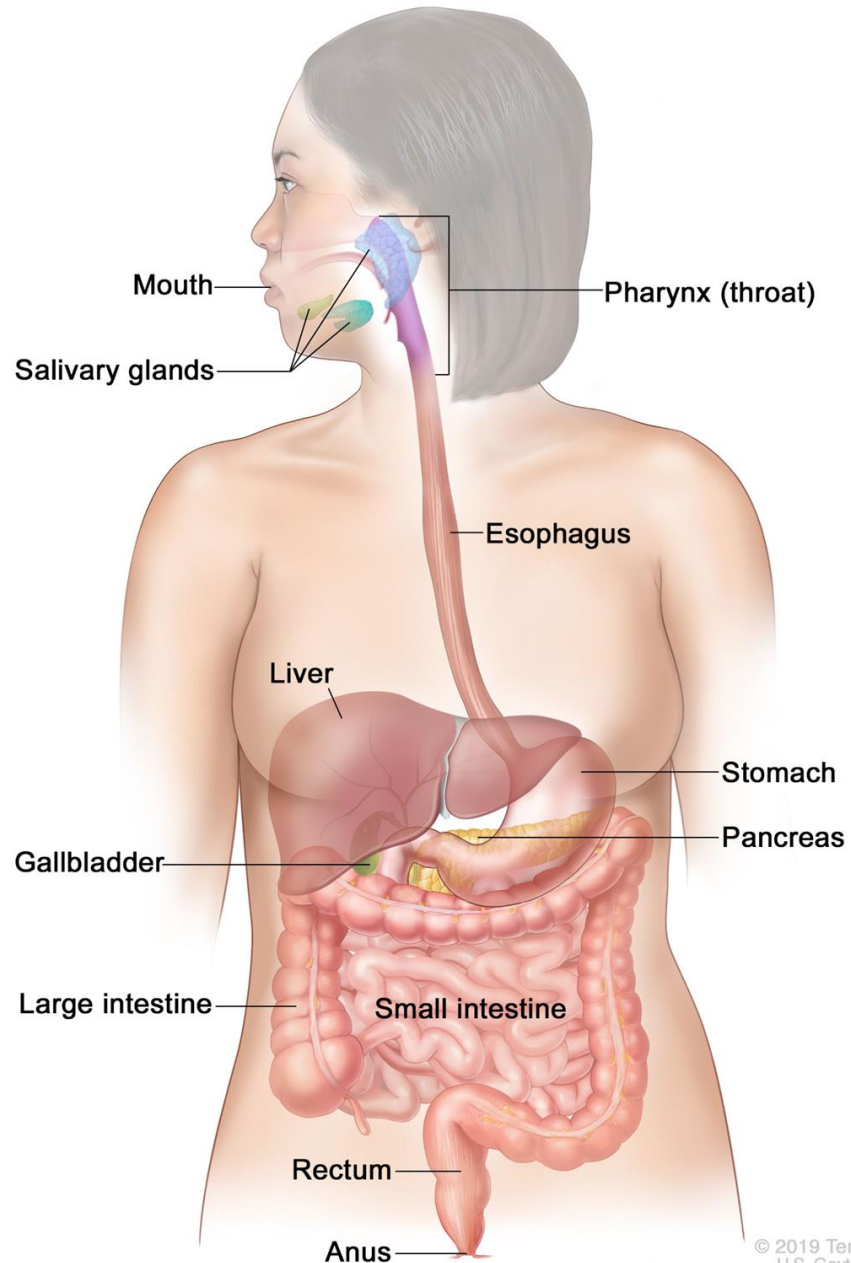
*2 - CDC/National Institute for Occupational Health and Safety (NIOSH)*



# ENDOCRINE SYSTEM

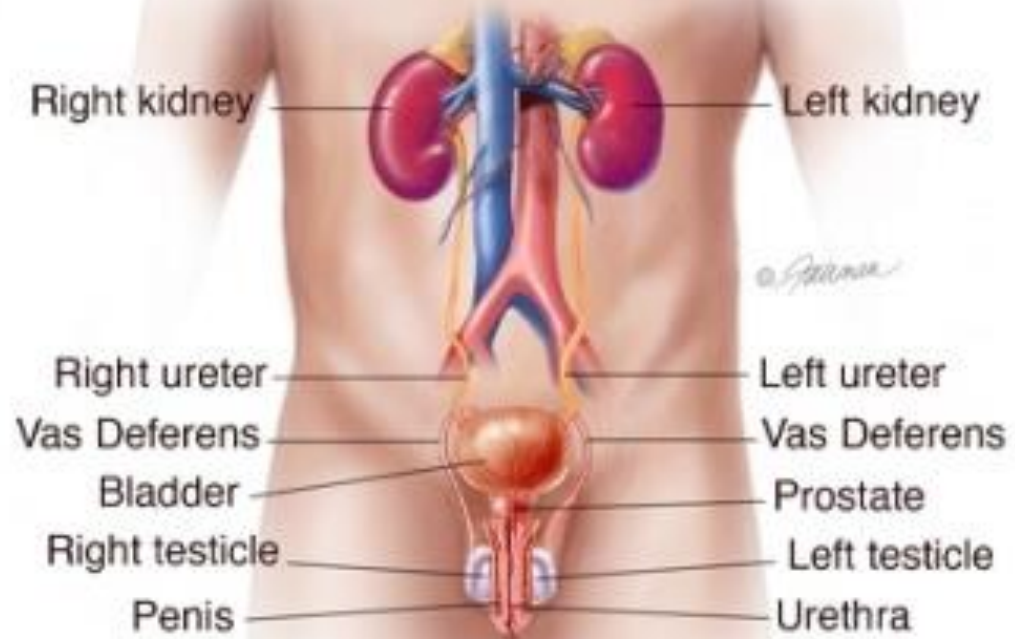


# GASTROINTESTINAL SYSTEM

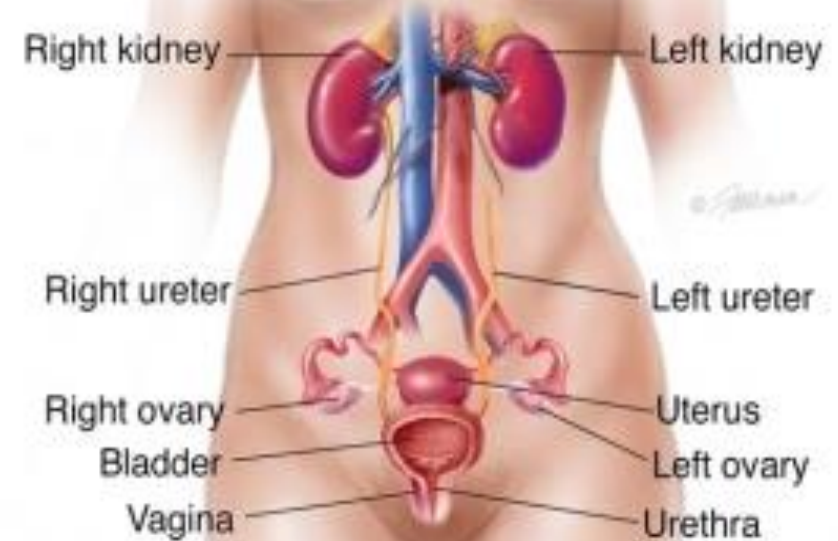




# Genitourinary Tract



MALE



FEMALE

# Comprehensive Program



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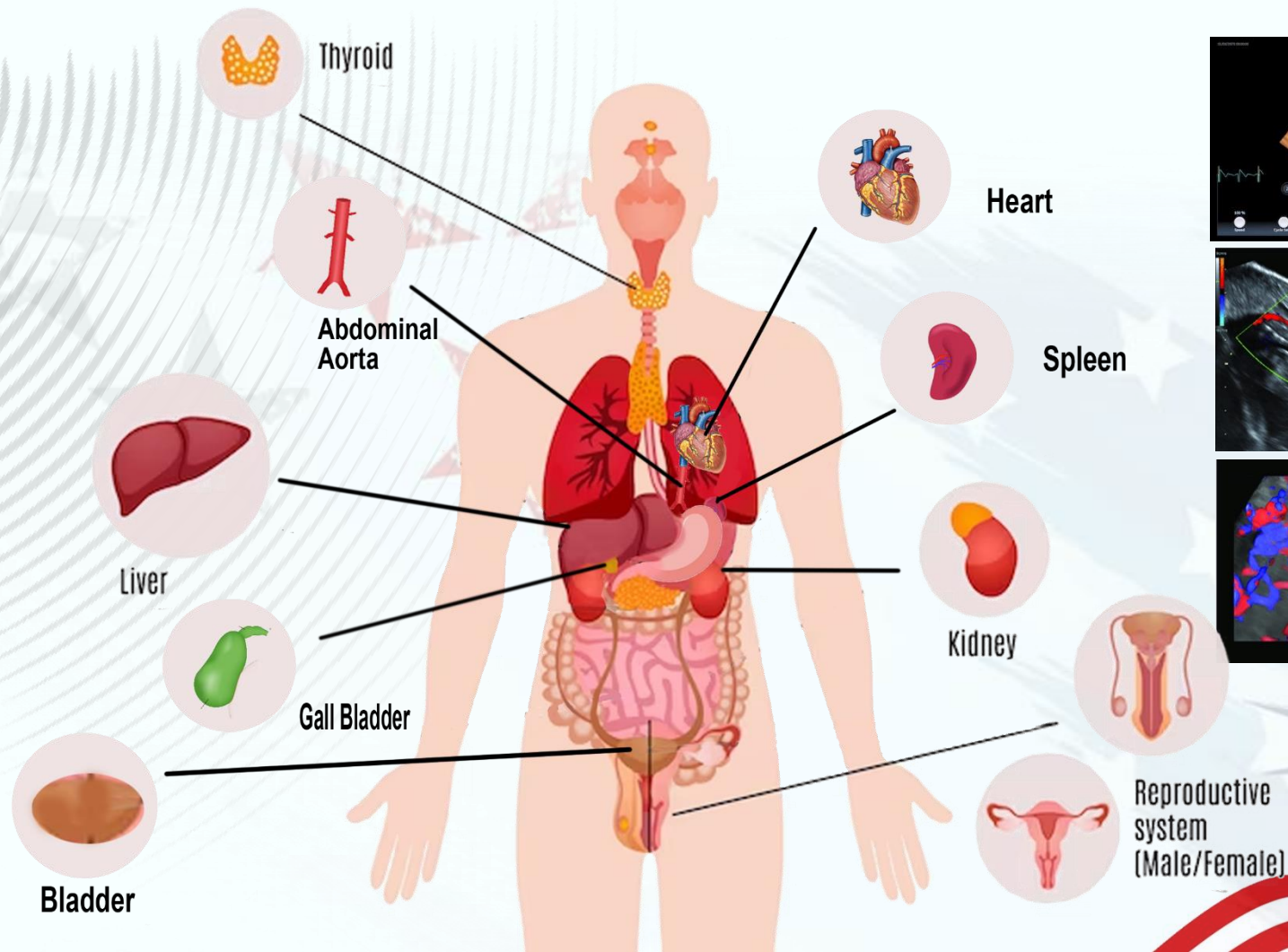


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# Cancers Detected through UDS Screenings 2023



**30+** Cancer Detections among Firefighters  
(2023)



Anchorage, AK | Local 1264 - Bladder & Thyroid Cancer



Marysville, WA | Local 3219 - Thyroid Cancer

Bellevue, WA | Local 1604 - Thyroid Cancer



Newport, KY | Local 45 - Thyroid Cancer



Carmel, IN | Local 4444 - Thyroid Cancer



Attleboro, MA | Local 848 - Thyroid Cancer

Bridgewater, MA | Fire Dept – 1 Testicular Cancer

Holbrook, MA | Local 1452 - Testicular Cancer

Weymouth, MA | Local 1616 - Thyroid Cancer

Concord, MA | Local 1942 - Kidney Cancer



Montgomery County, MD | Local 1664 – 3 Thyroid Cancers



Schenectady, NY | Local 28 - Thyroid Cancer

NYSPFFA - Thyroid Cancer

NYSPFFA - Bladder Cancer



Skyland Fire, NC | Prostate Cancer

Buncombe County, NC | Thyroid Cancer



Utah | PFFU Convention - Bladder Cancer



Providence, RI | Local 799 – 2 Thyroid Cancers



Fairfax County, VA | Local 2068 - Colon & 2 Thyroid Cancers

Virginia Beach, VA | Local 2924 - Thyroid Cancer

Manassas, VA | Local 4466 - Thyroid Cancer



Waterbury, CT | Local 1339 - 3 Thyroid Cancers



# TESTIMONIAL

## Jeff Stahl

- Member of Local 45 – Newport, KY
- Screened November 2023
- Papillary Carcinoma



# TESTIMONIAL

## Joe Bogdanski

- Waterbury, CT Local 1339
- Thyroid Cancer





# TESTIMONIAL

## Troy Kelsheimer

- Carmel Indiana Fire Department
- Screened March 2023
- Papillary Thyroid Cancer



# TESTIMONIAL

## Jason Centofanti

- Philadelphia, Local 22
- Thyroid Cancer



**Jason Centofanti**  
Philadelphia - IAFF Local 22



# TESTIMONIAL

## Barry Maham

- Fairfax County, Local 2068
- Colon Cancer



# TESTIMONIAL

## Matthew Embrey

- Member of Local 3886 – Spotsylvania, VA
- Screened July 2022
- Kidney Cancer

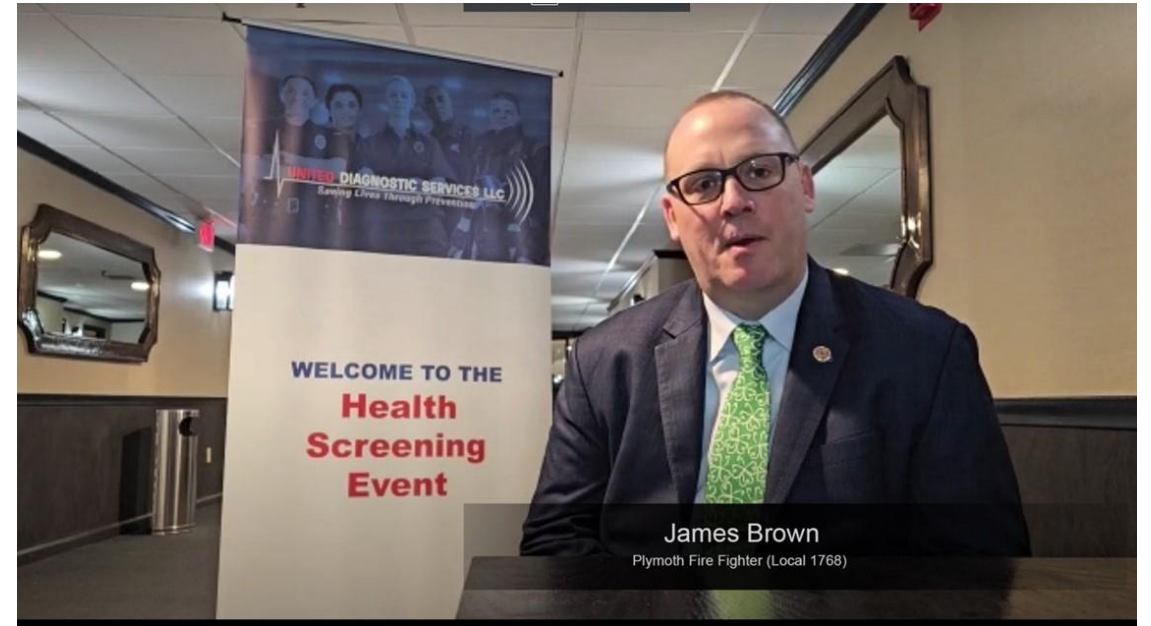




# TESTIMONIAL

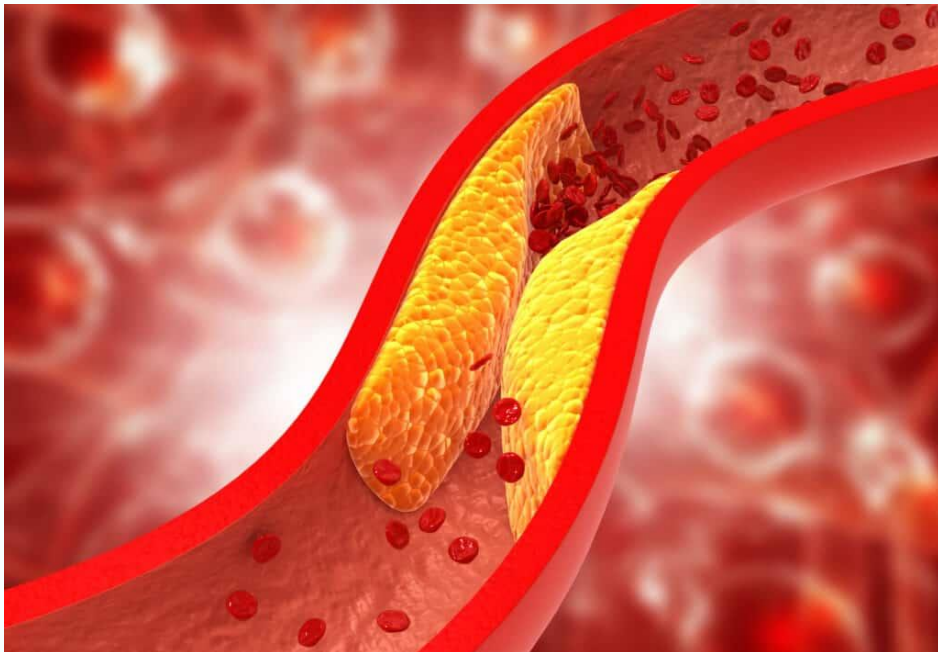
## James Brown

- Member of Local 1768 – Plymouth, MA
- Screened November 2022
- Testicular Cancer



# Atherosclerotic Cardiovascular Disease

Concern\*\*: Leading cause of death globally  
Daily Toll in the U.S. \*\*: 2,300 lives





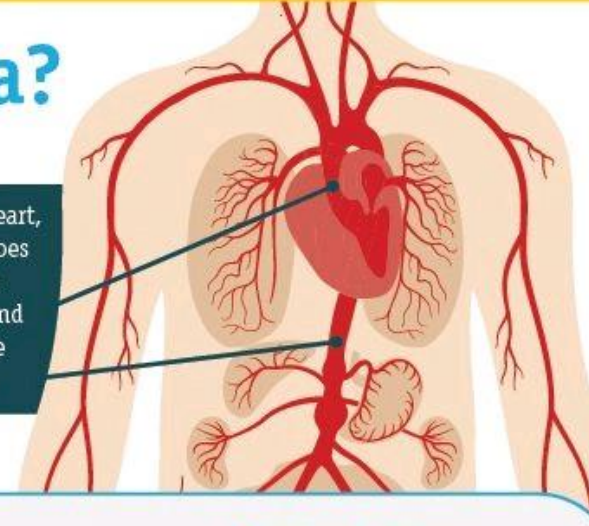
## What is your aorta?

- ▶ The body's main, largest blood vessel
- ▶ It carries oxygen-rich blood from the heart to the body



**Problems with the aorta can be deadly. It's important to find, follow, and treat them early.**

From the heart, the aorta goes up through the **chest** and down to the **abdomen**.



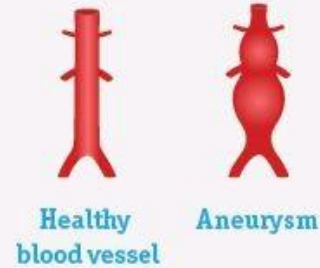
### Common conditions

- **Aortic aneurysm**

A balloon-like bulge or swelling of the aorta. For example, it can happen in your:

- **chest** (thoracic aneurysm)
- **lower torso** (abdominal aneurysm)

Without treatment, layers of the aorta can tear (dissect) or rupture



- **Aortic valve disease**

The valve that controls blood flow out of the heart to the body isn't working well.

- **Aortic occlusive disease**

Blood flow through the aorta is blocked.

- **Aortitis**

Inflammation of the aorta.

### Know the risk factors



Older age



Smoking



High blood pressure



Family history



Diabetes



High cholesterol, plaque buildup in the arteries



Genetic disorders or connective tissue diseases (Marfans, Ehlers Danlos and others)



A heart defect you're born with (bicuspid aortic valve)



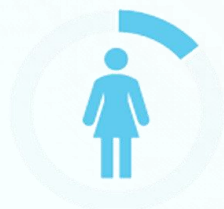
## TOTAL POPULATION 2022-2023



**6723**  
Participants



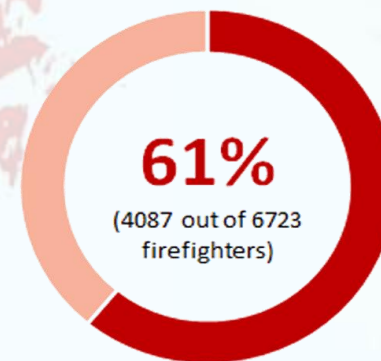
**86%**  
(5741 males)



**14%**  
(968 females)

Includes all screenings from 2022 through January 2023  
Gender not specified for 14 participants

Percentage of  
firefighters with at  
least one actionable  
finding



**6712**

Total Actionable Findings



**9%**



of Actionable Findings are  
"High-Risk"  
(577 High-Risk Findings)



**2%**



of High-Risk Findings were  
Cancer  
(9 Cancers Detected)

# Summary of Actionable Findings

 = High Risk Pathology

National Report | 2022-23 Screenings

6723 Total Participants

5741  968 

## 577 High-Risk Findings

High-Risk Finding	Total #
<b>General Organs</b>	<b>434</b>
Prostate – Heterogeneous and Enlarged	254
Testicles - Calcification/Microlithiasis	114
Thyroid - Nodules - Solid >1cm High Risk	55
Urinary Bladder – Abnormal Mass	5
Kidney – Abnormal Mass Growth	3
Urinary Bladder – Urinary Nodule	2
Pelvic - Heterogeneous Mass	1
<b>Cardiovascular</b>	<b>143</b>
Cardiac - Aortic Root Dilated	43
Cardiac - Moderate LVH	38
Cardiac - Moderate Mitral Regurgitation	24
Aorta - Dilated	12
Cardiac - Moderate-Severe Aortic Insufficiency	8
Cardiac - Low EF	6
Cardiac - Calcified Valve-Stenosis	6
Cardiac - Moderate Tricupid Regurg	4
Cardiac - Severe Mitral Valve Regurgitation	1
Cardiac - Moderate Pulm Regurg	1

## 6712 Total Actionable Findings

Liver	2367 Total Findings
Fatty and Enlarged	1810
Fatty	485
Hemangioma	27
Cyst	28
Fatty, Enlarged w/ Mass	10
Mass	3
Enlarged	1
Ill-Defined Mass	1
Hypoechoic Region	1
Complex Cystic Mass	1

Thyroid	1056 Total Findings
Enlarged Heterogeneous/Bulky	384
Nodules	352
Nodules - Solid <1 cm	58
<b>Nodules - Solid &gt;1cm High Risk</b>	<b>55</b>
Nodules - Complex	54
Nodules - Cystic	43
Cyst	26
Nodules - <1cm	21
Multiple Cystic Nodules	10
Non-Identifiable Tissue	9
Increased Vascularity	9
Heterogeneous Ill-Defined	8
Multiple Cystic Nodules	7
Heterogeneous and Small Size	7
Nodules - Solid	7
Smaller in size	4
Nodules - Bilateral	3
Irregular Shape	3
Heterogeneous and Atrophic in Size	2
Enlarged Lymph Node	1



# TESTIMONIAL

## Don Crumb

- Member of Local 2068 – Fairfax County, VA
- Screened June 2021
- AAA
- Returned to full duty April 2022



# TESTIMONIAL

## Jeff Schnebelen

- Member of Local 2598 – Prince William County, VA
- Screened - 2021
- Aortic Aneurysm
- Retired



# International Association of Fire Fighters



**Frank V. Líma**  
**General Secretary-Treasurer**



[#SaveLivesThroughPrevention](#)



# International Association of Fire Fighters






**Edward A. Kelly**  
**General President**



[#SaveLivesThroughPrevention](#)

## STREAM-LINE WORKFLOW OF RESULTS TURNAROUND TIME



**Transthoracic Echocardiogram**  
**Study Report**

DAVID PLUMMER  
July 03, 2023

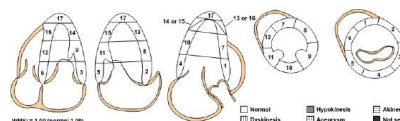
MRN: PD0418	Age: 65	Study Time: 10:05 AM
DOB: [REDACTED]	Gender: M	Reading Group: Dr. Saddam Toor
Height: 75 in	Weight: 275 lbs	Referring Group: United Diagnostic Services
BP: 118/78 mmHg	BSA: 2.59 m <sup>2</sup>	Sonographer: Olga Storozhuk
BMI: 34.55		Location: Local
		Equipment: Z60

Study Quality: Excellent

<b>Left Ventricle</b>		<b>Normal</b>		<b>LVIDd</b>	6.2 cm	(4.2 - 5.8)	<b>LV FS (midwall)</b>	33 %	(14 - 22)
EF (Teich)	61 %	(52 - 72)		LVIDd / BSA	2.40 cm/m <sup>2</sup>	(2.2 - 3.1)	LVIDs	4.2 cm	(2.5 - 4)

#### Findings:

1. Left ventricle cavity is dilated.
2. Left atrial cavity is normal in size.
3. Right atrial cavity is normal in size.
4. Right ventricle cavity is normal in size.
5. Structurally normal trileaflet aortic valve with no regurgitation.
6. Structurally normal mitral valve with no regurgitation.
7. Structurally normal tricuspid valve with no regurgitation.
8. Structurally normal pulmonic valve with no regurgitation.
9. No evidence of significant pericardial effusion.
10. The aortic root is normal.






#### Conclusions:

Left ventricle cavity is dilated.  
Normal global wall motion.  
Calculated EF 61%.

SCREENING EXAMS ARE PERFORMED TO DETERMINE THE ABSENCE OR PRESENCE OF DISEASE ON PARTICIPANTS THAT HAVE NO SPECIFIC SIGN OF DISEASE. THESE ARE NOT INTENDED TO REPLACE A COMPLETE DIAGNOSTIC EXAM AND ARE NOT INTENDED TO BE A SUBSTITUTE FOR PROFESSIONAL MEDICAL ADVICE. ALWAYS CONSULT YOUR DOCTOR WITH ANY QUESTIONS YOU MAY HAVE REGARDING YOUR HEALTH OR MEDICAL CONDITION. THE RESULTS OF THE SCREENING EXAM CAN BE AFFECTED BY A NUMBER OF FACTORS THEREBY LIMITING THEIR ACCURACY. IT IS IMPORTANT THAT YOU GIVE ALL TEST RESULTS TO YOUR PHYSICIAN FOR THEIR REVIEW, AS IT MAY BE NECESSARY FOR YOU TO HAVE A COMPLETE DIAGNOSTIC TEST PERFORMED AND AN EVALUATION WITH A CARDIOLOGIST.

Saddad Toor  
Electronically Signed on Studycast  
July 05, 2023 07:04 PM EDT

**Screening**  
**Study Report**

THOMAS TOOLEY  
June 30, 2023

MRN: TT0105185	Age: 65	Study Time: 07:31 AM
DOB: [REDACTED]	Gender: M	Reading Group: Dr. Daniel Beyda
Height: 75 in	Weight: 225 lbs	Referring Group: United Diagnostic Services
BP: 132/62 mmHg	BSA: 2.33 m <sup>2</sup>	Sonographer: Olga Storozhuk
BMI: 28.28		Location: [REDACTED]
		Equipment: Z60

Study Quality: Excellent

#### Carotid

Right and left common and internal carotid arteries appear normal. No plaque or elevated velocity is identified.

#### Thyroid

Thyroid gland appears normal. No nodule or abnormal calcification is identified.

#### Abdomen

The abdominal aorta measures <3cm. AAA was not identified on this examination.  
Increased echogenicity in the liver parenchyma is noted.  
The gallbladder is normal.  
Right and left kidneys are within normal limits.  
Multiple subcentimeter calcifications in the spleen are noted.

#### Scrotal/Pelvic

Right and left testicles appear normal. No testicle mass is identified.

#### Bladder

Bladder appears within normal limits.

#### Conclusions:

Fatty infiltration of the liver parenchyma.

July 05, 2023 05:52 AM EDT  
Daniel Beyda  
Electronically Signed on Studycast

Multiple subcentimeter calcifications in the spleen are noted which may represent granulomata.

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# Fact: Cancer is the leading cause of death among firefighters

**#1** **Cancer** was responsible for **61%** of line-of-duty deaths since 2002 and **70%** of line-of-duty deaths in 2016

---



**Heart disease** was the root cause of **18%** of line-of-duty deaths between 2002-2016

---



**Firefighters are at greater risk** for developing certain cancers compared to the general population






**1971:** National War on Cancer declared by Richard Nixon\*\*

**Goal:** Cure cancer within five years

**Reality:** Cancer remains undefeated despite significant funding and research effort



## Cancer Today:

1. Cancer as a leading cause of death:\*\*
  2. Second leading cause of death in the United States
  3. Together with heart disease, it accounts for nearly half of all U.S. deaths.
  4. \*\*Progress:\*\*
  5. Some success in increasing survival rates for specific cancers (e.g., leukemia, Hodgkin's and non-Hodgkin's lymphomas)
  6. However, overall progress in the "war" remains limited
- 



# Early Detection is a Key Weapon Against Cancer

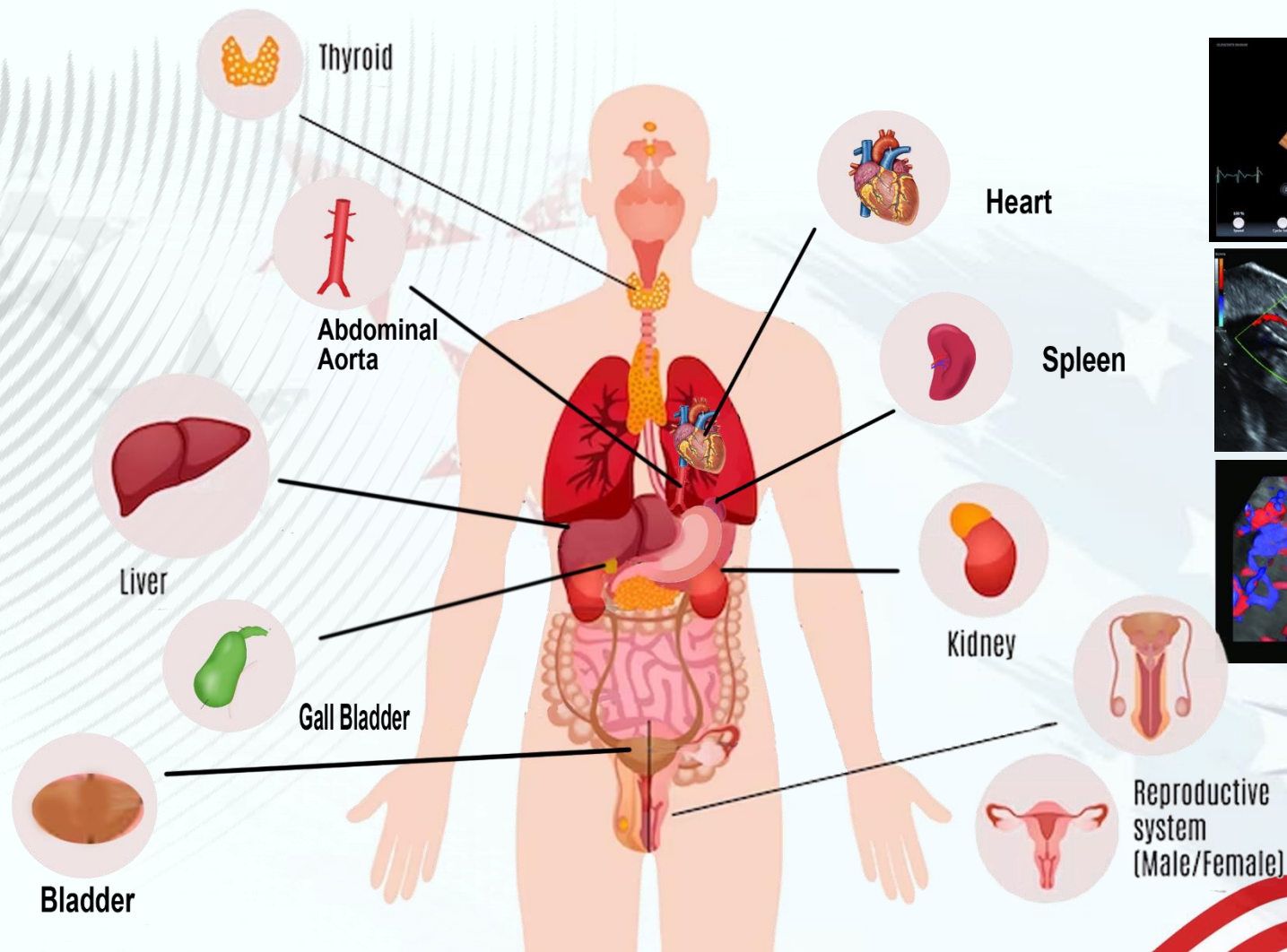


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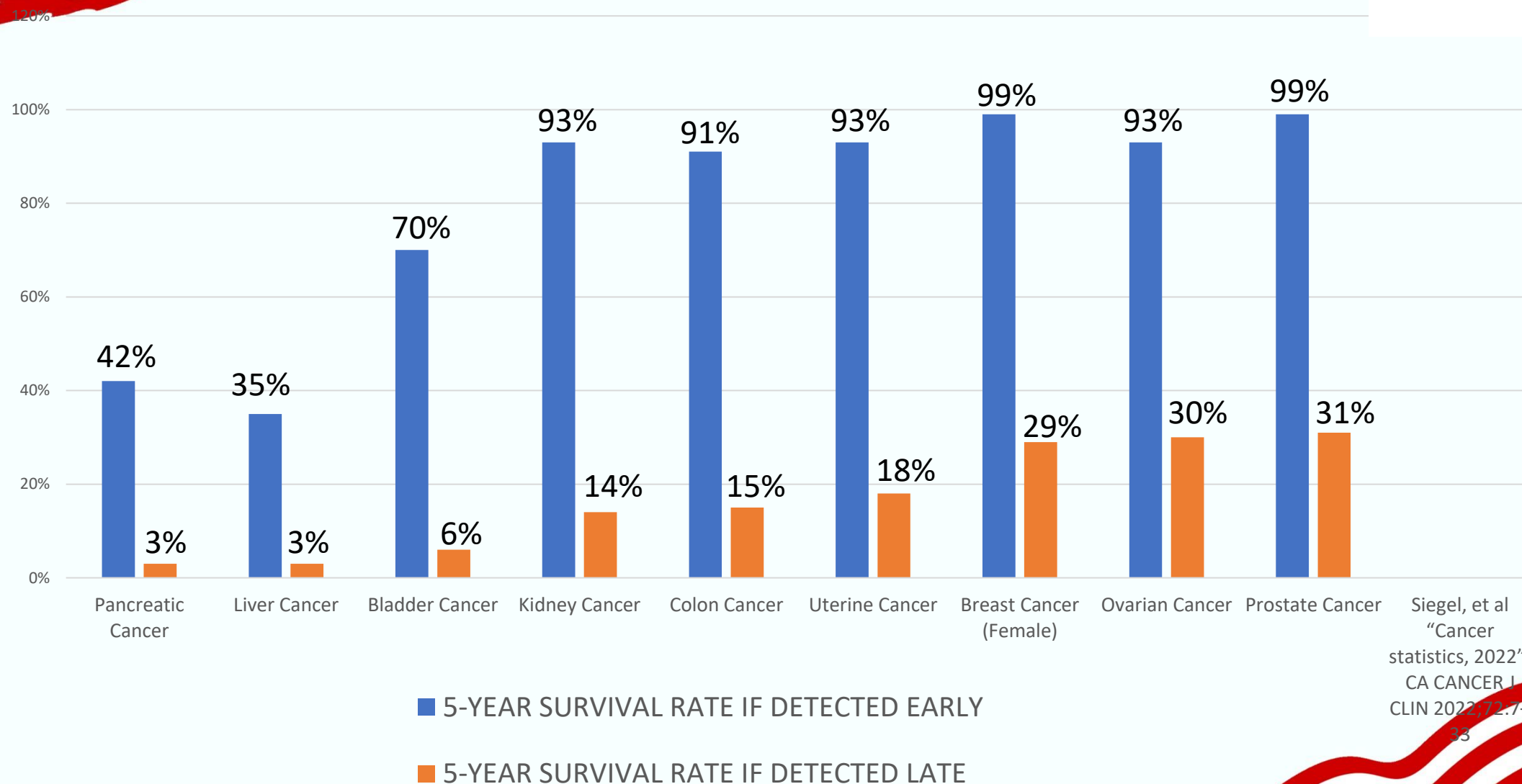








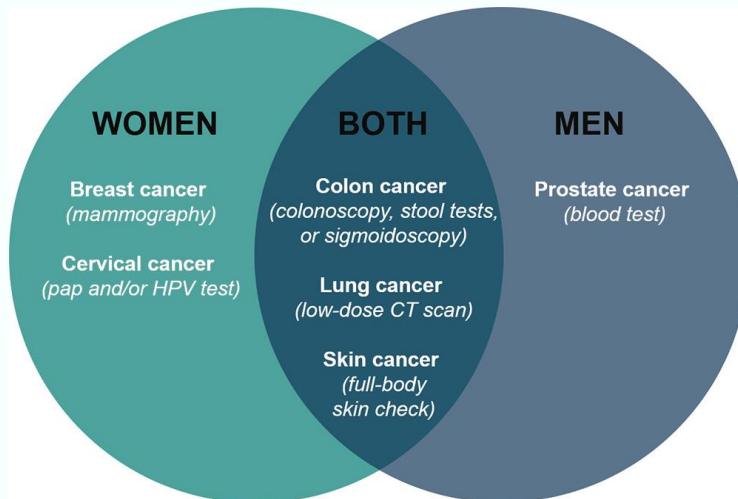
# 5-YEAR Survival Rate



Siegel, et al  
"Cancer  
statistics, 2022",  
CA CANCER J  
CLIN 2022;72:7–

*Screening rates vary by the type of cancer.*

- 87% of individuals eligible for lung cancer screenings are NOT up to date with recommendations
- 31% of individuals eligible for colorectal cancer screenings are NOT compliant
- 27% of those eligible for cervical cancer screenings are not compliant or current
- 24% of those eligible for breast cancer screenings are not compliant or current

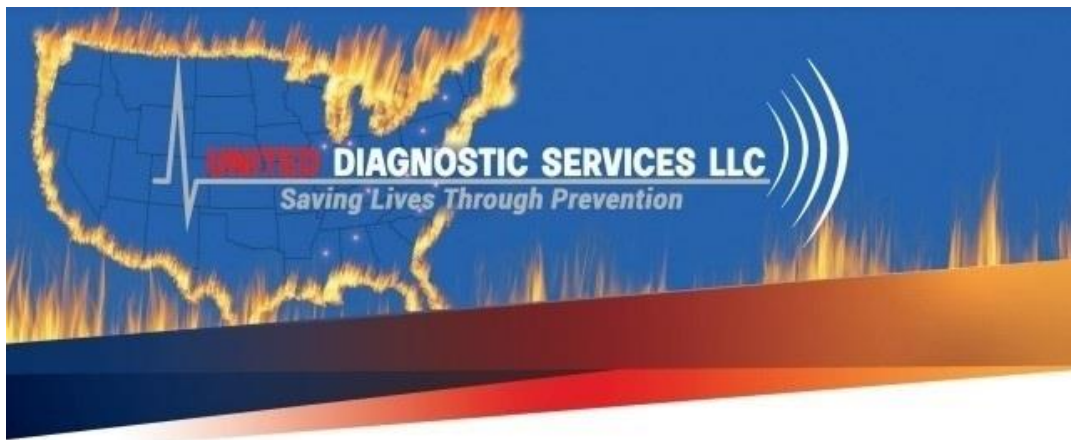


### *Reduction of cancer deaths*

If 10% more individuals that are eligible for cancer screenings participated, then:

- 1% reduction in lung cancer deaths
- 4% reduction in breast cancer deaths
- 21% reduction in colorectal cancer deaths
- 40% reduction in cervical cancer deaths





[Visit Our Website](#)

[Download Our Brochure](#)



[Schedule A Virtual Meeting](#)



646-854-3299  
UDSHealth.com







# IAFF Local 2000

## Ultrasound Health Screening



**TO:** Members Howard County Professional Fire Fighters  
**FROM:** Leadership, Howard County Professional Fire Fighters

**RE:** Ultrasound-based Cardiovascular and Cancer Screening Event  
**DATE:** April 25<sup>th</sup>, 2023

As a result of our continued commitment to the Health and Wellness of our members Howard County Professional Fire Fighters is hosting an Ultrasound Screening starting **Monday through Friday from June 19<sup>th</sup> – 23<sup>rd</sup>, 2023, from 7 AM to 3 PM.** This event will take place at:

5397 Twin Knolls Rd #16  
Columbia, MD 21045

United Diagnostic Services will be conducting Early Detection Diagnostic Testing, which has proven successful in identifying actionable pathologies to improve overall health as well as early detection for cancer and cardiovascular issues. Early detection has had a significant impact on helping prevent and reverse potential future catastrophic events. All tests are ultrasound-based and therefore painless.

**All tests are ultrasound based and therefore painless, and non-invasive. Tests include an Echocardiogram, Carotid, Abdominal Aorta, Thyroid, Liver, Spleen, Bladder, Kidney, and Testicular. This screen also includes an Exterior Pelvic scan for females. The examination will take approximately 30 min to complete.**

**The screenings will be scheduled from Monday 6/19/2023 through Friday 6/23/2023 from 7 AM to 3 PM.** *Fasting for 8 hours is required for the screening and you must pre-register to participate. Results will be issued 7 to 10 business days after testing.*

### **Pre-registration is required. To schedule your appointment:**

1. Go to (click here) [Scheduling Link](https://udshealth.as.me/?calendarID=8028103) (https://udshealth.as.me/?calendarID=8028103)
2. Click on "Choose Appointment"
3. Select your desired appointment date/time and click "Continue"
4. Enter required information: First & Last Name, phone number, email address.
5. Enter Additional Information requested.
6. Click "Complete Appointment"

## 1 Choose Appointment



### Comprehensive Health Screening 30 minutes

Non-invasive ultrasound for the early detection of various cancers and cardiovascular disease. This program is only offered through organization, departments, or municipalities.

#### TIME ZONE

(GMT-5:00) Eastern Time

[< PREVIOUS](#)

[MORE TIMES >](#)

IN 7 WEEKS

**Monday**  
February 5

**Tuesday**  
February 6

**Wednesday**  
February 7

**Thursday**  
February 8

**Friday**  
February 9

7:00am  
1 spot left

7:00am  
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7:00am  
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7:30am  
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8:00am  
1 spot left

7:30am  
1 spot left

8:00am  
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8:00am  
1 spot left

8:00am  
1 spot left

Continue »

## 2 Your Information

[< EDIT APPOINTMENT INFORMATION](#)

**Comprehensive Health Screening**  
30 minutes  
February 6, 2024 at 7:00am

Name \*

First Name

Last Name

Phone \*

Add your phone number to receive an appointment reminder via text message.

Message and data rates may apply. One message per appointment.

Email \*

### Additional Information

Please complete this information for your appointment. This will be used to verify information submitted at the time of your scheduled exam.

Address including city, state, and zip code. \*

Date of Birth (Month - Day - Year) \*

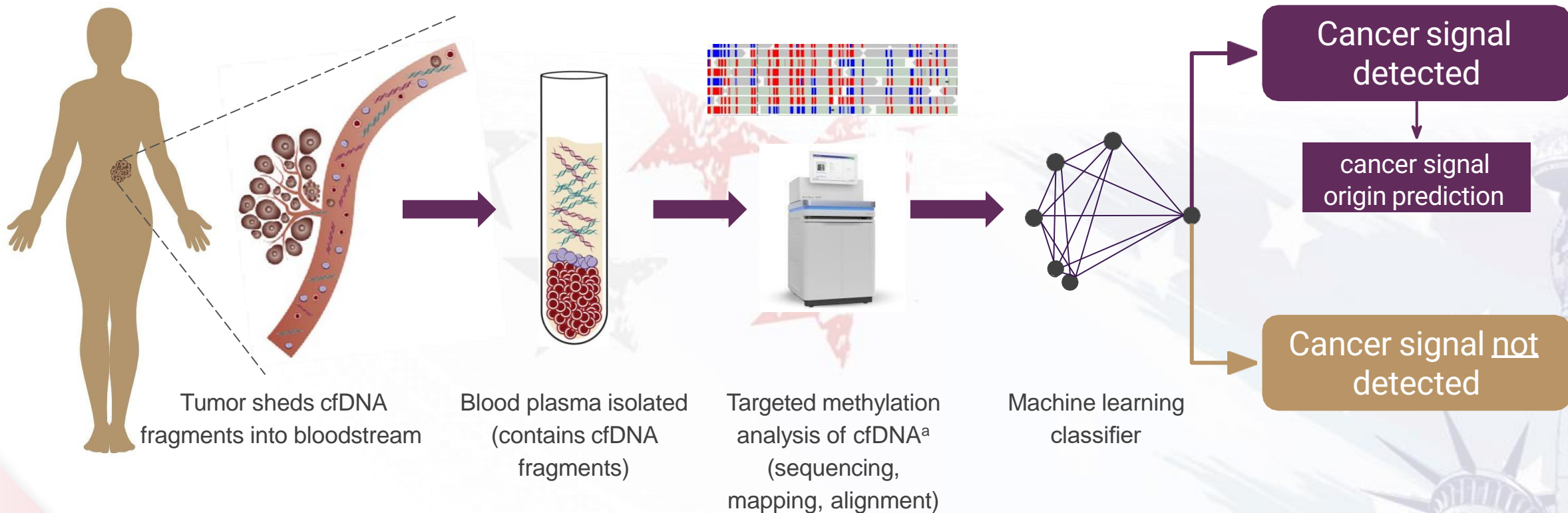
Gender (anatomical) \*

Once you open the link, simply choose your appointment date and time, enter information, and click "Complete Appointment".



# Multi Cancer Early Detection

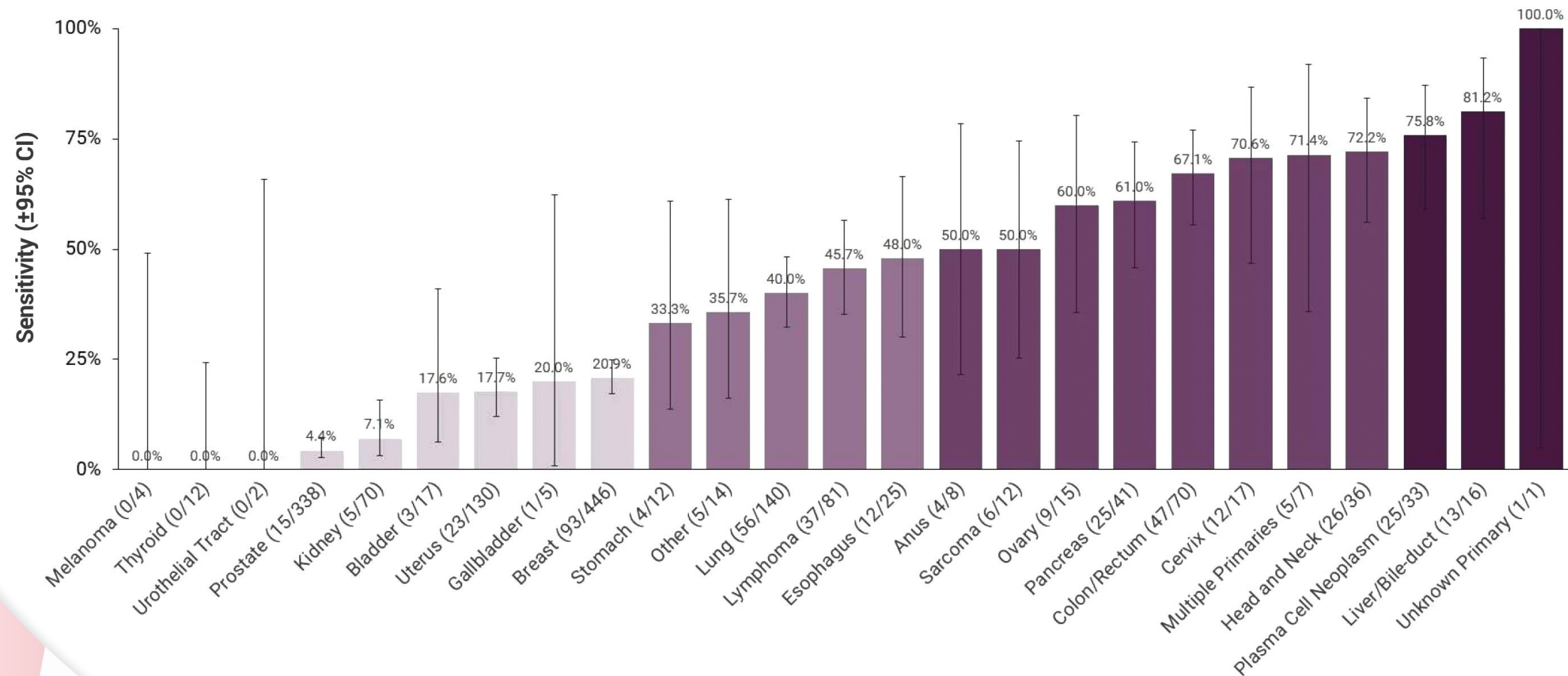
Cancer can be anywhere: using a targeted methylation, next-generation sequencing (NGS)-based assay analyzing cfDNA and machine learning to detect cancer and predict cancer signal origin



cfDNA, cell-free DNA. <sup>a</sup>Bisulfite treatment; targeted probes pull out fragments matching regions of interest. The Galleri® test does not detect all cancers and should be used in addition to routine cancer screening tests recommended by a healthcare provider. Adapted from Liu MC, et al. *Ann Oncol.* 2020;31(6):745-759. DOI:10.1016/j.annonc.2020.02.011. Galleri is a registered trademark of GRAIL, LLC.



# Sensitivity of Cancer Signal Detection by Cancer Class: Stage



# Cancer Screening Guideline Recommendations

Cancer Type	Standard Guidelines	UDS Guidelines
Lung and Bronchus	Low-dose CT	MRI-DWI or low-dose CT
Colon and Rectum	Colonoscopy	Colonoscopy
Pancreas	None	MRI-DWI, CT with contrast and 3D reconstruction, endoscopic ultrasonography
Breast	2D- or 3D- Mammography	Mammography and mpMRI or Ultrasound *
Prostate	Prostate-specific antigen (PSA)	<ul style="list-style-type: none"> <li>Low PSA: PSA, PSA velocity, PSA density, mpMRI *</li> <li>High-PSA: 4k testing, mpMRI</li> <li>Anything suspicious: mpMRI</li> </ul>
Liver & Intrahepatic Bile Duct	None	MRI-DWI, Ultrasound, CT
Leukemia(s)	None	Chest x-ray, CAT scan, blood test with complete blood count (CBC), liquid biopsy
Non-Hodgkin Lymphoma	None	MRI-DWI
Brain and other nervous system	None	MRI-DWI, CT
Urinary Bladder	None	Cystoscopy, Ultrasound
Esophagus	None	Endoscopy
Kidney and Renal Pelvis	None	MRI-DWI, Ultrasound, CT
Ovary	None	MRI-DWI or CT or Transvaginal ultrasound
Myeloma	None	Liquid biopsy
Uterus	None	MRI-DWI or Transvaginal ultrasound
Stomach	None	Endoscopy, Barium x-ray
Oral Cavity and Pharynx	None	MRI-DWI or CT
Melanoma of the Skin	Whole-body visual exam by clinician	Whole-body visual exam by clinician
Cervix	Pap smear (cervical cytology)	Pap smear
Larynx	None	Endoscopy
Mesothelioma	None	MRI-DWI, Low-dose CT
Thyroid	None	MRI-DWI, Ultrasound, CT
Hodgkin's Lymphoma	None	MRI-DWI
Testis	None	MRI-DWI, Ultrasound



# Cancer screening saves lives.

## Screening Recommendations

These recommendations are for people at average risk for certain cancers. Talk to a doctor about which tests you might need and the screening schedule that's right for you. It's a good idea to also talk about risk factors, such as lifestyle behaviors and family history, that may put you or your loved ones at higher risk.

### Ages 25–39

**Cervical cancer screening**

recommended for people with a cervix beginning at age 25.

### Ages 40–49

**Breast cancer screening**

recommended beginning at age 45, with the option to begin at age 40.

**Cervical cancer screening**

recommended for people with a cervix.

**Colorectal cancer screening**

recommended for everyone beginning at age 45.

At age 45, African American individuals should discuss **prostate cancer screening** with a doctor.

### Ages 50+

**Breast cancer screening**

recommended.

**Cervical cancer screening**

recommended.

**Colorectal cancer screening**

recommended.

People who currently smoke or used to smoke should discuss **lung cancer screening** with a doctor.

Discussing **prostate cancer screening** with a doctor is recommended.



# Boston

Dear Primary Care Physician,

The City of Boston and Harvard Pilgrim Healthcare have mutually agreed upon a program to improve the health and wellness of Boston Fire Department members through increased testing and a more thorough regimen of preventive medicine. A key part of this program is the annual physical provided for our members.

Chronic exposure to heat, smoke and toxins cause numerous adverse physiological changes in firefighters. Evidence suggests that firefighters have a greater risk of developing coronary artery disease and cancer than other city residents. Comprehensive firefighter physical exams and screening tests focusing on primary prevention of cardiovascular disease and cancer should be done annually.

The following is a list of suggested areas for your focus.

## Areas for screening and specific risk factors for heart disease to be addressed include:

Diabetes	Smoking
Hypertension	Alcohol and Substance Abuse
Obesity	Family History of Coronary Artery Disease
Sedentary Lifestyle	High Cholesterol

## Prevalent cancers in firefighters that need to be screened for ten years earlier than the general population, where applicable, include:

- Skin	- Kidney	- Brain
- Lung	- Prostate	- Leukemia
- Colon	- Bladder	- Lymphoma

## The annual exam should include:

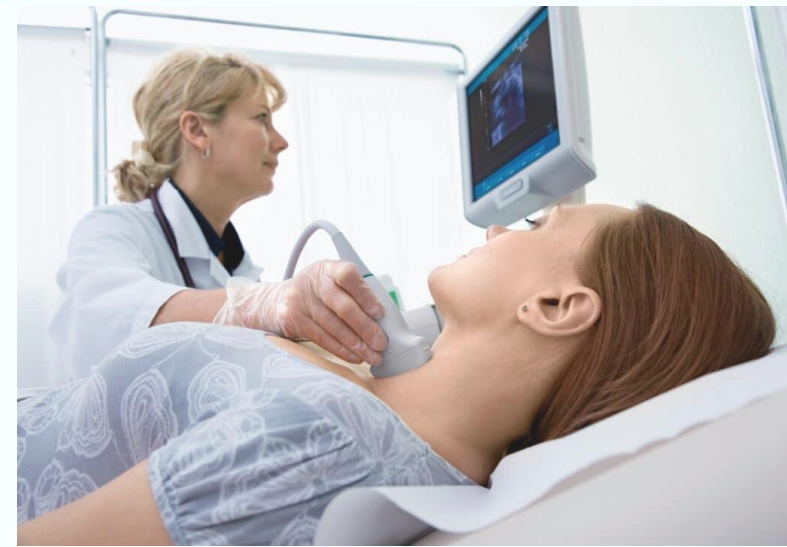
• Blood pressure, pulse, respiratory rate, and temperature
• Oxygen saturation
• Weight and body fat index
• Thorough skin exam
• Eye exam and hearing testing
• Oral exam
• Heart and lung exam
• Abdominal and testicular exam
• Prostate and rectal exam with fecal occult blood testing
• Pelvic and Pap exam for female firefighters
• Vascular, neurological and mental status exams



Thomas M. Menino, Mayor/FIRE DEPARTMENT/115 Southampton Street 02118

# CPT Codes

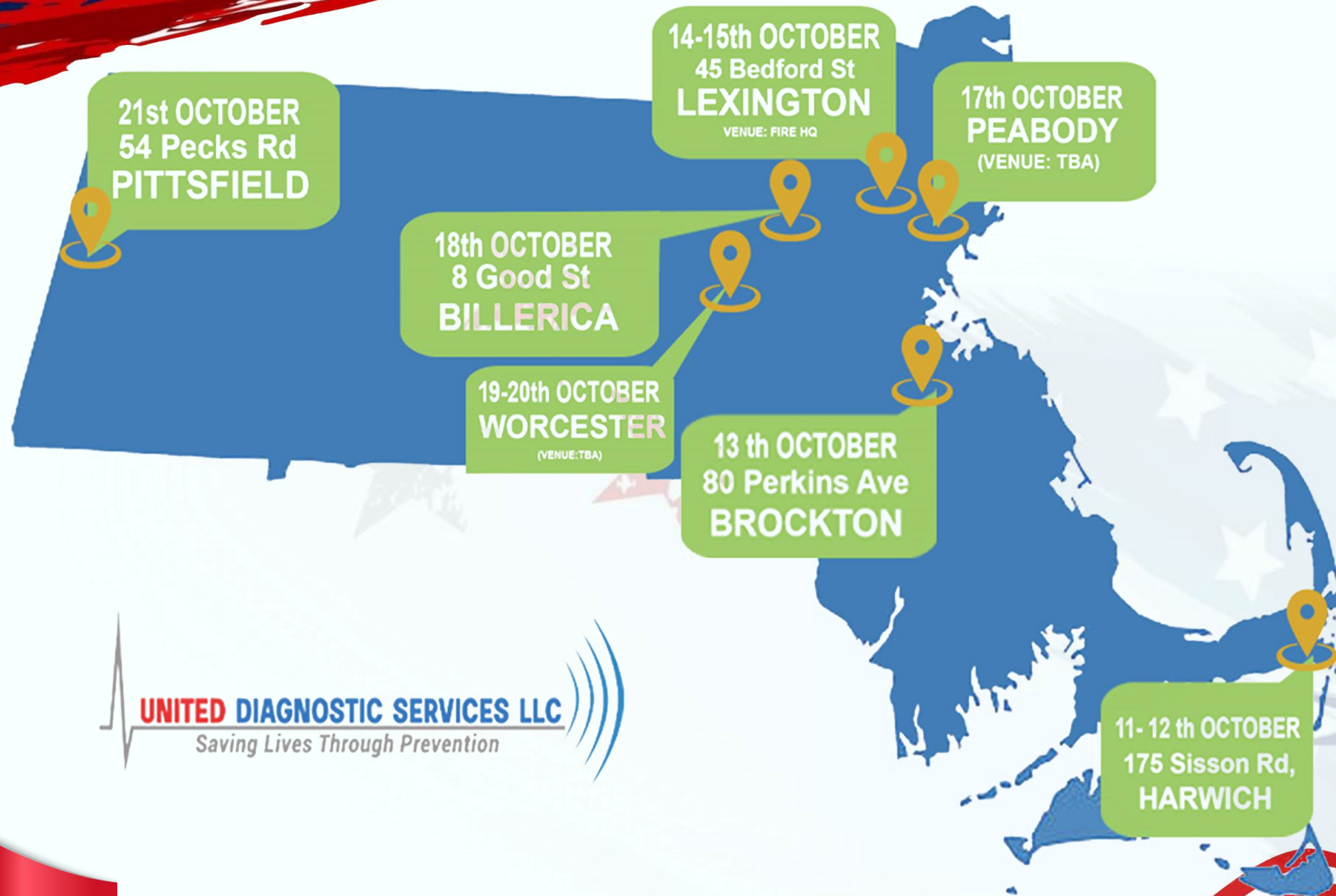
## Provider Performing Radiology Services (Ultrasounds/CT Scan/Mammo)



Thyroid	76536	Ultrasound, soft tissues of head and neck (eg, thyroid, parathyroid, parotid), real time with image documentation	Z13.29	Encounter for screening for other suspected endocrine disorder
Testicular	76870	Ultrasound, scrotum and contents	Z12.71	Encounter for screening for malignant neoplasm of testis











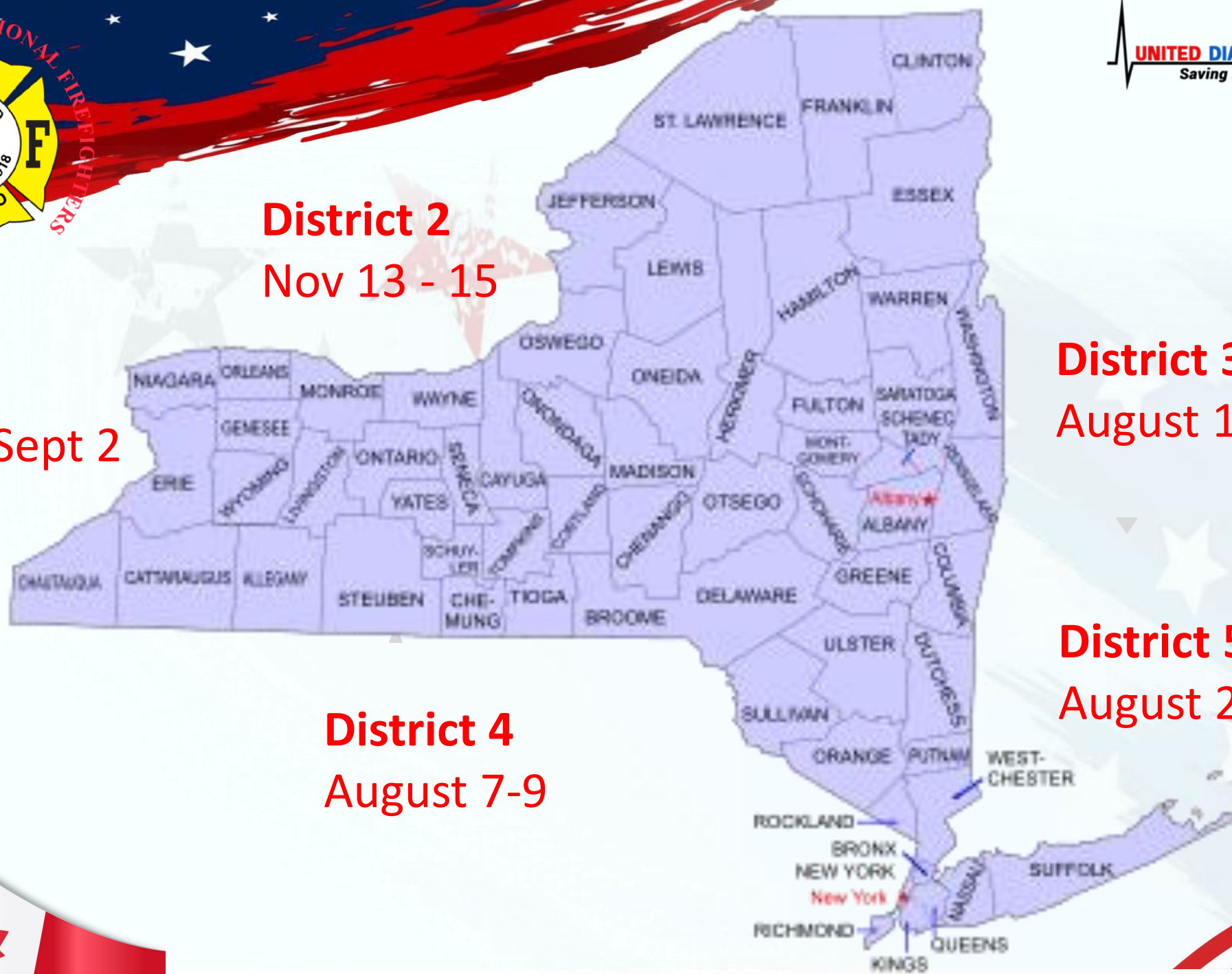
**District 1**  
Aug 29 - Sept 2

**District 2**  
Nov 13 - 15

**District 3**  
August 10-12

**District 4**  
August 7-9

**District 5**  
August 24-30



Starting April 1<sup>st</sup>

**UNITED DIAGNOSTIC SERVICES**  
**will be available to provide services in**  
**Ontario, Canada**







**Get your cancer screening scheduled today!**

**ULTRASOUND CANCER SCREENING**

- Thyroid
- Bladder
- Testicular

**30 min**

**64-SLICE CT CANCER SCREENING**

- Lung cancer screening (low dose CT scan)
- CT heart attack screening (calcium scoring)

**20 min**

**CUSTOMIZED SCREENINGS**



**MOBILE CT SCAN UNIT**







With our **telemedicine** service,  
getting care is convenient and efficient

## STREAM-LINE WORKFLOW OF RESULTS TURNAROUND TIME





# BLOOD PRESSURE

## KNOW YOUR NUMBERS

**BLOOD PRESSURE** is the force of your blood moving against the walls of your arteries. It's expressed as **TWO NUMBERS**:

**Top Number:**  
**SYSTOLIC** (mm Hg)  
The pressure or force in the arteries when the heart beats

**Bottom Number:**  
**DIASTOLIC** (mm Hg)  
The pressure measured between heartbeats

### WARNING!

Over time elevated or high blood pressure weakens your heart, blood vessels and kidneys, and makes a stroke or heart attack much more likely

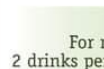


### LIFESTYLE CHANGES that Lower Blood Pressure

 **Move More**  
Get regular physical activity

 **Focus on Nutrition**  
Follow the DASH diet and eat potassium-rich vegetables

 **Cut Salt**  
Aim for 1,500 mg of sodium or less per day

 **Limit Alcohol**  
For men, not more than 2 drinks per day; for women, 1

 **Lose Weight**  
Losing just a few pounds can make a big difference

 **Don't Smoke**  
If you smoke, stop

 **De-stress**  
Meditation and rest help lower blood pressure

Information provided for educational purposes only. Please consult your health care provider about your specific health needs.

Go to [CardioSmart.org/HighBP](https://www.cardiosmart.org/HighBP) to learn more about High Blood Pressure.



## HEART FAILURE

### What is **HEART FAILURE?** A PROBLEM with HOW YOUR HEART PUMPS.

There are two main types of heart failure:



Weak chambers become big over time

#### REDUCED EJECTION FRACTION

The heart can't pump or squeeze enough blood out to the body.



Stiff chambers fill with less blood than usual

#### PRESERVED EJECTION FRACTION

The heart can't fill with enough blood.

#### Ejection fraction

is a measure of how much blood your heart is pumping out with each beat.

## SYMPTOMS



Over 6 million Americans have heart failure

It is the leading cause of hospitalization for people 65+

## COMMON CAUSES

Coronary artery disease



Heart attack



Diabetes



High blood pressure



Heart rhythm disorders

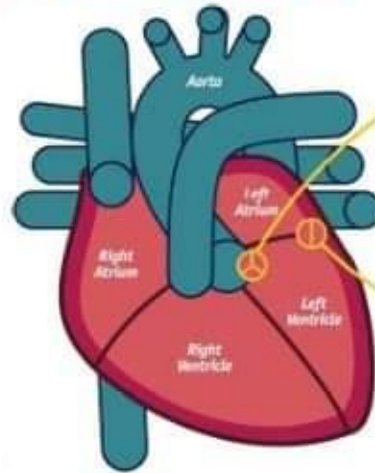


- Heart inflammation
- Valve problems
- Congenital heart problems
- Obesity
- Some cancer treatments

# HEART VALVE DISEASE

## Know Your VALVES

Most heart valve problems involve the **aortic & mitral valves**.



**AORTIC VALVE**  
between the left ventricle and the main artery (aorta)

**MITRAL VALVE**  
between the left atrium and the left ventricle

### SIGNS & SYMPTOMS

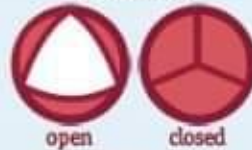
May vary, but often include:

- Heart murmur or unusual heartbeat
- Shortness of breath
- Swelling in the legs
- Chest pain
- Unusual fatigue
- Feeling dizzy or fainting

**HEART VALVE DISEASE** happens when at least 1 of the 4 valves in the heart no longer works the way it should.

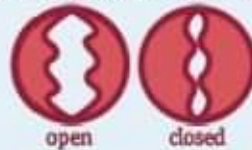
## Most Common VALVE ISSUES

### NORMAL



The valve fully opens & closes.

### Mitral REGURGITATION



The valve doesn't fully close & leaks.

### Aortic STENOSIS



The valve doesn't open enough.

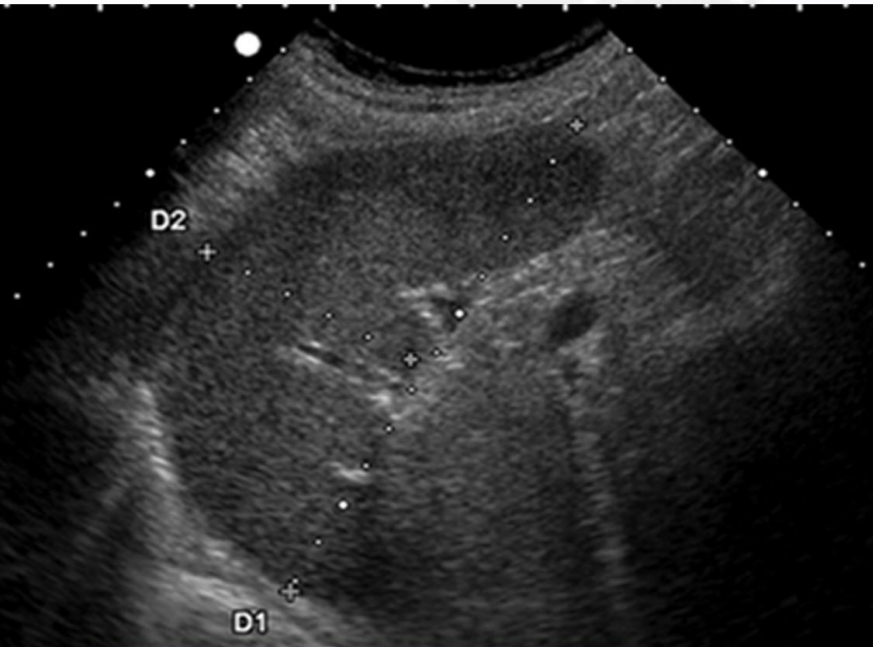
## What YOU CAN DO

**MEDICAL & SURGICAL THERAPIES**  
The valve may be repaired or replaced.

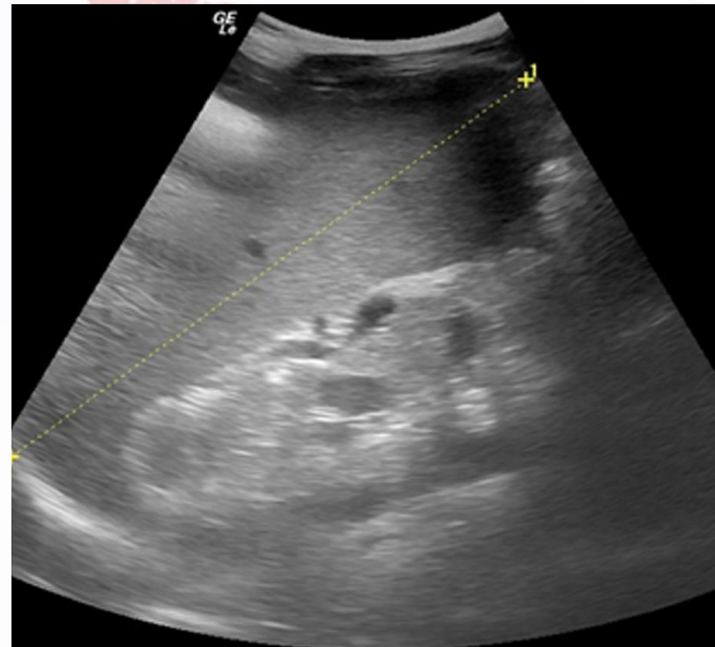
**LIFESTYLE CHANGES**  
to support overall heart health.



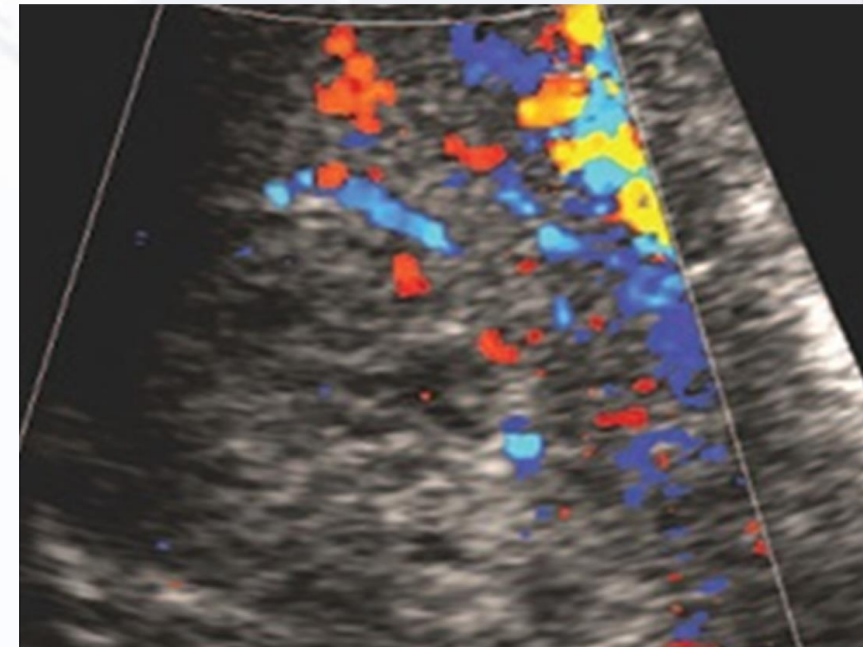
# Spleen Abnormalities



**NORMAL SPLEEN**



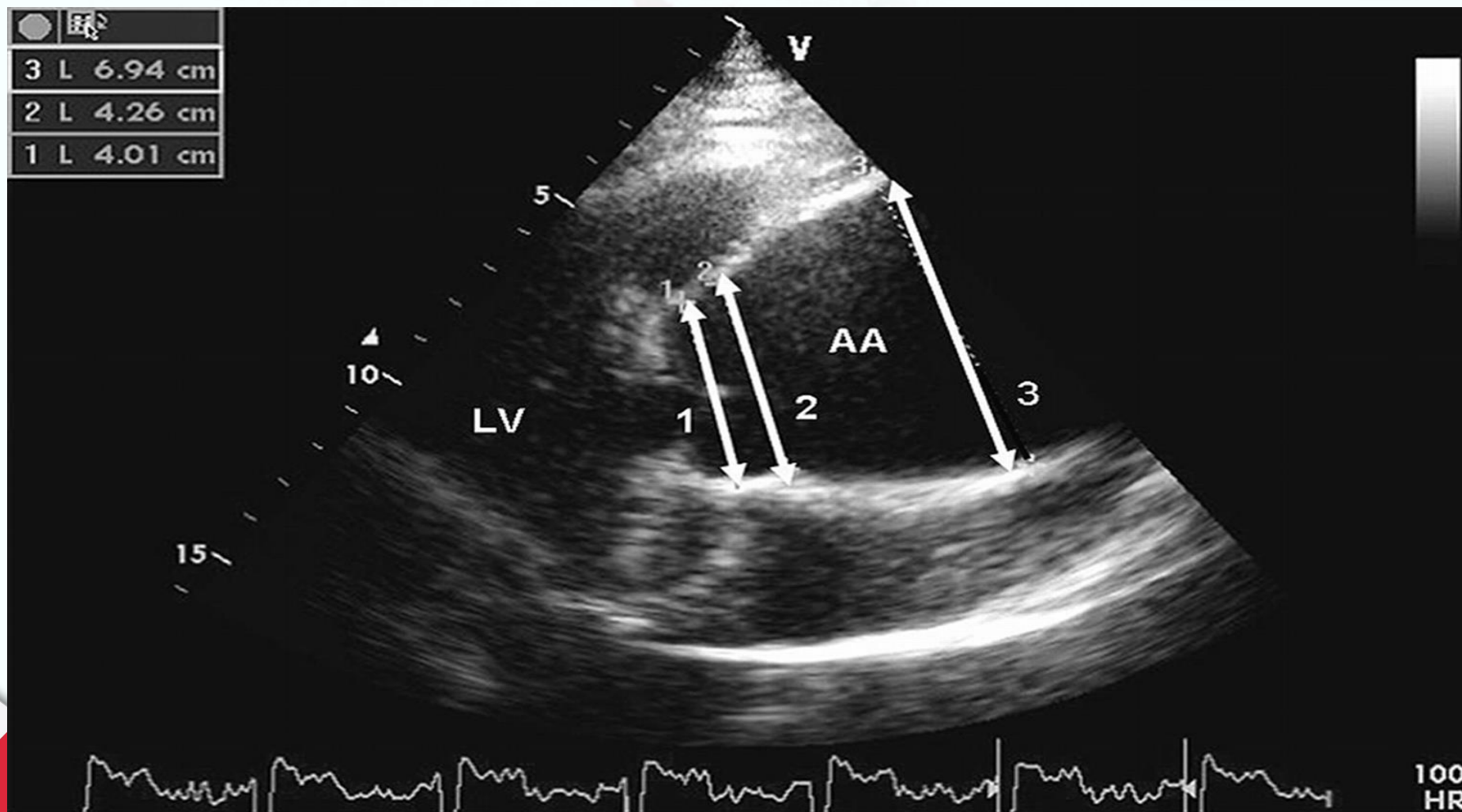
**Enlarged Spleen**



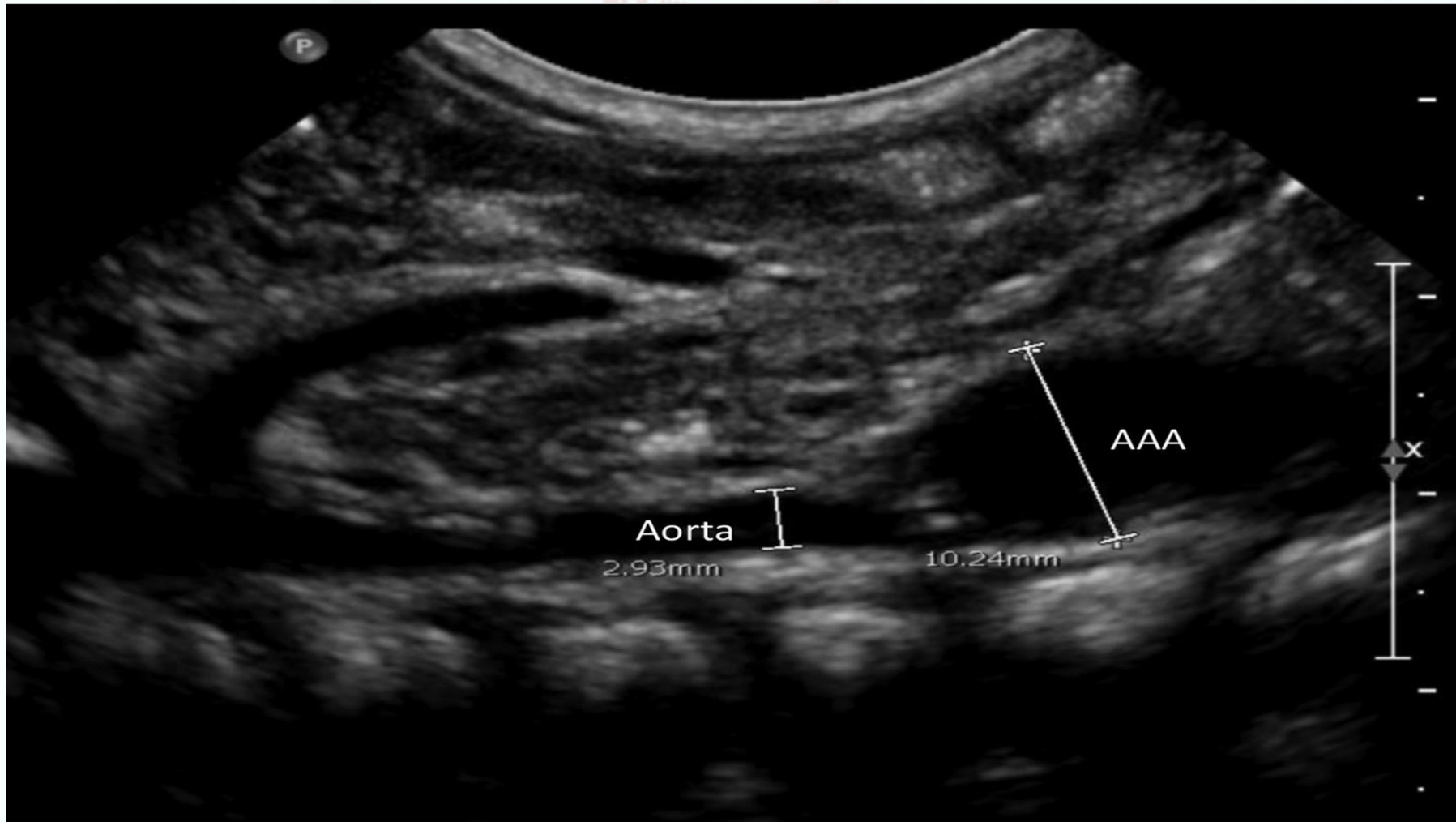
**Increased Vascularity in Spleen**



## Ascending Aorta - Dilated



## Abdominal Aorta Aneurysm





# New Programs To Be Deployed

