

# VIMEDIX PATHOLOGIES

Different modules and packages offer pathologies that focus on specific cases during ultrasound training. All of the following modules and packages are available for purchase.

## Transthoracic Echocardiography (TTE) Module

The transthoracic echocardiography (TTE) module contains the following pathologies:

- Dilated Cardiomyopathy – Severe Biventricular Systolic Dysfunction
- Hyperdynamic Left Ventricular Systolic Function
- Normal
- Normal, Patient 2 (Montreal Heart Institute heart template, enhanced lung)
- Normal, Patient 3 (Montreal Heart Institute heart template, enhanced lung, enhanced abdomen)
- Recent Anterior Myocardial Infarction with Pericardial Effusion

## Transesophageal Echocardiography (TEE) Module

The transesophageal echocardiography (TEE) module contains the following pathologies:

- Dilated Cardiomyopathy – Severe Biventricular Systolic Dysfunction
- Hyperdynamic Left Ventricular Systolic Function
- Normal
- Normal, Patient 2 (Montreal Heart Institute heart template, enhanced lung)
- Normal, Patient 3 (Montreal Heart Institute heart template, enhanced lung, enhanced abdomen)
- Recent Anterior Myocardial Infarction with Pericardial Effusion

## Additional Cardiac Pathology Packages

The following packages are sold separately from the two cardiac module options.

### Cardiac Package 1

- Anterior Myocardial Infarction in a COPD Patient
- Biologic Prosthetic Valve in Aortic Position
- Dilated Cardiomyopathy – Mild Left Ventricular Systolic Dysfunction
- Dilated Cardiomyopathy – Very Severe Left Ventricular Systolic Dysfunction in a COPD Patient
- Left Pleural Effusion
- Left Ventricular Apical Aneurysm with Thrombus
- Mechanical Prosthetic Valve (Bileaflet) in Aortic and Mitral Position
- Mechanical Prosthetic Valve (Bileaflet) in Mitral Position
- Normal Heart in a COPD Patient
- Tamponade

## Cardiac Package 2

Acute Anterior Myocardial Infarction  
Acute Lateral Myocardial Infarction in a COPD Patient  
Aortic Valve Infective Endocarditis  
Asystole  
Coarse Ventricular Fibrillation  
Dilated Cardiomyopathy – Very Severe Left Ventricular Systolic Dysfunction  
Dilated Cardiomyopathy – Mild Left Ventricular Systolic Dysfunction in a COPD Patient  
Fine Ventricular Fibrillation  
Pulmonary Hypertension  
Pulmonary Hypertension in a COPD Patient

## Cardiac Package 3

Acute Inferior Myocardial Infarction  
Acute Lateral Myocardial Infarction  
Acute Right Ventricular Myocardial Infarction  
Aortic Dissection – Type B  
Aortic Stenosis - Valvular  
Billowing Mitral valve – two leaflets  
Bicuspid Aortic Valve  
Dilated Cardiomyopathy – Severe Left Ventricular Systolic Dysfunction  
Myxoma  
Right Pleural Effusion

## Cardiac Package 4

Acute Inferior and Right Ventricular Myocardial Infarction with Ventricular Septal Defect  
Acute Inferior Myocardial Infarction with Right Ventricular Myocardial Infarction  
Aortic Insufficiency  
Atrial Septal Defect - small  
Billowing Mitral Valve  
Cardiac Arrest Standstill in a COPD patient  
Coronary Artery Disease – Wall Motion Abnormalities in the 3 Coronary Territories  
Dilated Cardiomyopathy – Moderate Biventricular Systolic Dysfunction  
Left Atrial Appendage Thrombus  
Thrombus in Transit Patent Foramen Ovale

## Cardiac Mix & Match Package 1

This Cardiac Mix & Match package includes pathologies from all four of the cardiac packages and is tailored to the needs of point-of-care healthcare professionals.

- Acute Lateral Myocardial Infarction
- Anterior Myocardial Infarction in a COPD Patient
- Aortic Stenosis – valvular
- Dilated Cardiomyopathy – Moderate Biventricular Systolic Dysfunction
- Fine Ventricular Fibrillation
- Mechanical Prosthetic Valve (bileaflet) in Aortic and Mitral Position
- Myxoma
- Pulmonary Hypertension
- Right Pleural Effusion
- Tamponade

## Montreal Heart Institute

This Montreal Heart Institute package includes pathologies created in collaboration with the Montreal Heart Institute.

- Amyloidosis
- CMP - Dilated
- CMP - Hypertrophic
- Ebstein's Anomaly - ASD
- LV Apical Thrombus
- Mitral Valve Prolapse
- Mitral Valve - Rheumatic Disease
- Myxoma
- Takotsubo
- VSD (CIV) Post-Infarct

## Montreal Heart Institute (MHI) Acute Complex Pathology<sup>+</sup> Package

This package was developed in collaboration with the Montreal Heart Institute (MHI), using our enhanced heart and lung anatomical template, which includes animated lungs and IVC.

- Abdominal Compartment Syndrome
- Dynamic Right Ventricular Outflow Tract Obstruction
- Floating Pulmonary Embolism
- Full Stomach
- Inferior Vena Cava Stenosis
- Isolated Left Atrial Tamponade
- Isolated Right Atrial Tamponade
- Left Ventricular Outflow Tract Obstruction
- Mechanical Right Ventricular Outflow Tract Obstruction
- Reduced Mean Systemic Pressure (Reduced Preload) From Liver Abscess
- Reduced Mean Systemic Pressure (Respiratory Variation Of Superior Vena Cava)
- Right Pneumothorax And Right Heart Collapse
- Right-sided Carbon Dioxide Or Air Embolism

## Emergency Ultrasound Pathology Package

The Emergency Ultrasound Pathology Package contains emergency medical conditions requiring rapid diagnosis at the point of care and includes the following pathologies:

- Right Atrium Tamponade
- Severe Hypovolemia
- LVOT Obstruction LVH Post AVR
- Acute RV Failure
- Air Embolism
- Extensive Myocardial Ischemia
- Aortic Dissection
- Large Cardiac Mass
- Acute MR Post AVR
- Prosthesis Dysfunction Post MVR

## Abdominal Base Module

The Abdominal Base module contains the following pathologies:

- Normal
- Normal, Patient 2
- Normal, Patient 3
- Hydatid Cyst of the Liver
- Liver Hepatocellular Carcinoma Hypoechoic
- Multilocular Intra-Abdominal Abscess
- Free Fluid - Hepato-Renal Reflection (Morrison's Pouch - Small)
- Free Fluid - Retro-Vesical Reflection (Large)
- Free Fluid – Spleno-Renal Reflection (Medium)

## Additional Abdominal Pathology Packages

The following packages are sold separately from the two abdominal module options.

### Abdominal Package 1

- Acute Cholecystitis
- Angiomyolipoma
- Bacterial Hepatic Abscess
- Cholecystitis with Gallstone
- Choledocolithiasis
- Exophytic Renal Cyst
- Hepatomegaly
- Kidney Stones
- Pancreatic Pseudocyst
- Splenomegaly

## Abdominal Package 2

Chronic Pancreatitis  
Gallbladder Polyp  
Hepatic Haemangioma  
Hepatic Heterogeneous Metastases  
Hepatic Homogeneous Metastases  
Hepatic Steatosis  
Large Gallbladder Polyp  
Renal Cyst  
Splenic Cyst  
Splenic Haemangioma

## Abdominal Package 3

Bochdalek Hernia - Left Side  
Cholelithiasis  
Gallstones  
Hepatic Cirrhosis with Portal Hypertension  
Liver Hepatoma  
Heterogeneous Lesion  
Pancreatitis  
Pyelonephritis  
Renal Abscess  
Renal Cyst Rupture  
Schlerosing Cholangitis

## Abdominal Package 4

Adenocarcinoma of the Gallbladder  
Bochdalek Hernia  
Calcified Granulomas  
Focal Nodular Hyperplasia  
Hepatic Cirrhosis  
Hepatic Cirrhosis with Ascites  
Left Hydronephrosis  
Liver Adenoma  
Liver Hepatocellular Carcinoma Hyperechoic  
Liver Hepatoma Hyperechoic Lesion (Large)

## Abdominal Aortic Aneurysm (AAA) Pathology<sup>+</sup> Package

AAA - Medium Suprarenal

AAA - Small Renal

AAA - Medium Renal

Left Iliac Artery Aneurysm

Each AAA pathology has the following modality options that can be turned on and off:

- Digestive system gas
- Dissection
- Free fluid
- Mural Thrombus
- Pericardial Fluid

## FAST Package 1

FAST Package 1 contains 10 cases involving various levels and combinations of free fluid around the heart, lungs and abdomen consistent with traumatic injuries.

The following pathologies are included in the FAST Package 1:

Free Fluid - Retro-Vesical Reflection (Small)

Free Fluid - Retro-Vesical Reflection (Medium)

Free Fluid - Splenal-Renal Reflection (Small)

Free Fluid - Supra-Splenal

Free Fluid - Above the Spleen with Hemothorax

Free Fluid - Bilateral Renal Reflection (Small)

Free Fluid - Hepato-Renal Reflection (Morrison's Pouch - Large)

Left Lateral Trauma

Spleen Rupture

Small Pericardial Effusion

## FAST Mix & Match Package

This FAST Mix & Match package includes selected pathologies from all of the cardiac and abdominal packages and is tailored to the needs of point-of-care healthcare professionals.

- Abdominal Aortic Aneurysm
- Abdominal Aortic Dissection
- Aortic Dissection – Type B
- Free Fluid - Hepato-Renal Reflection (Morrison's Pouch – medium)
- Free Fluid - Retro-Vesicular Reflection (Medium)
- Free Fluid - Splenal-Renal Reflection (Large)
- Free Fluid - Splenal-Renal Reflection (Small)
- Left Pleural Effusion
- Right Pleural Effusion
- Tamponade

## Pleural Pathology Package

The Pleural Pathology Package provides lung pathologies featuring fully animated lung respiration and respiratory variation of the inferior vena cava (IVC). The following cases are part of the Pleural Pathology Package:

- Bilateral Diaphragmatic Dysfunction
- Bilateral Pulmonary Edema
- Central Pneumonia
- Complete Pleural Effusion
- Empyema
- Normal, Enhanced Heart and Lungs
- Pneumonia
- Pneumothorax
- Small Pleural Effusion
- Unilateral Diaphragmatic Dysfunction