

flowchart LR

A[Initiating Clinical Causes]

A --> A1[Ischemic Injury]
A --> A2[Pressure Overload]
A --> A3[Volume Overload]
A --> A4[Cardiomyopathy]
A --> A5[Myocarditis]
A --> A6[Arrhythmia]
A --> A7[Metabolic Disease]
A --> A8[Valvular Pathology]

A1 --> B
A2 --> B
A3 --> B
A4 --> B
A5 --> B
A6 --> B
A7 --> B
A8 --> B

B[Persistent Activation of Signaling Pathways]

B --> C1[Neurohormonal]
B --> C2[Mechanical]
B --> C3[Inflammatory]
B --> C4[Oxidative]
B --> C5[Metabolic]

C1 --> D
C2 --> D
C3 --> D
C4 --> D
C5 --> D

D[Preservation of Cardiac Output]

D --> E[Chronic Stimulation]

E --> F1[Altered Cardiomyocyte Phenotype]
E --> F2[Altered Fibroblast Activity]
E --> F3[Vascular Dysfunction]
E --> F4[Mitochondrial Metabolic Dysfunction]
E --> F5[Altered Intercellular Communication]