

## Cardiopulmonary Bypass Steps

### Step 1.

Heparin

### Step 2.

Expose the heart;  
Check BP/aorta

### Step 3.

Aortic cannulation;  
Check cannula for pressure and flow

### Step 4.

Atrial cannulation;  
Venous clamp off;  
On bypass;  
Lungs off

### Step 5.

Inspect the heart;  
Place aortic and/or retrograde cardioplegia;  
Reduce pump flow/cross-clamp aorta/  
Return to normal flow/check line pressure;  
Begin cardioplegia;  
Set patient temperature

### Step 6.

Release aortic cross-clamp after  
warm cardioplegia;  
Be certain six conditions reviewed  
before weaning CPB:  
Lungs inflating and deflating;  
Good contractility;  
Stable heart rhythm;  
No bleeding in inaccessible areas;  
Temperature at desired level;  
No retained air

### Step 7.

Wean off bypass;  
Venous line clamped/remove when stable;  
Remove aortic vent;  
Protamine;  
Follow RAP, PAP, and BP;  
Be alert for hemodynamic reaction;  
Remove arterial cannula

