



# Mechanical Circulatory Support

ALS PROCEDURE AP-11

<b>INDICATION</b>	<ul style="list-style-type: none"> <li>• Patients with mechanical circulatory support that present with any complaint.</li> </ul>				
<b>CONTRAINDICATION</b>	<ul style="list-style-type: none"> <li>• Do not give aspirin and/or nitroglycerin to mechanical circulatory support patients.</li> </ul>				
<b>PROCEDURE</b>	<ul style="list-style-type: none"> <li>• Identify type of mechanical circulatory support:</li> </ul> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"><b>Ventricular Assist Device (VAD)</b></th> <th style="width: 50%;"><b>Total Artificial Heart (TAH)</b></th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> <li>• Usually pulseless.</li> <li>• ECG shows native heart rhythm.</li> <li>• Only perform chest compressions with Base Hospital direction.</li> <li>• You may provide synchronized cardioversion, external cardiac pacing, or defibrillation.</li> <li>• Must auscultate the left upper quadrant of the patient’s abdomen for the “hum” of the VAD.</li> <li>• Usually have an internal cardiac defibrillator.</li> <li>• You will not be able to obtain a blood pressure.</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Pulsatile.</li> <li>• ECG is meaningless since there is no heart.</li> <li>• No compressions.</li> <li>• Do not provide synchronized cardioversion, external cardiac pacing, or defibrillation.</li> <li>• The TAH’s Freedom Driver is audible without a stethoscope, making a “galloping” type of sound.</li> <li>• Do not have an internal cardiac defibrillator.</li> <li>• Blood Pressure is obtainable utilizing a normal sphygmomanometer.</li> </ul> </td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• Contact Base Hospital and request assistance with coordinating care and destination decision for mechanical circulatory support patient.</li> <li>• Mechanical Circulatory support patients should go to the closest receiving facility unless directed otherwise by Base Hospital.</li> </ul>	<b>Ventricular Assist Device (VAD)</b>	<b>Total Artificial Heart (TAH)</b>	<ul style="list-style-type: none"> <li>• Usually pulseless.</li> <li>• ECG shows native heart rhythm.</li> <li>• Only perform chest compressions with Base Hospital direction.</li> <li>• You may provide synchronized cardioversion, external cardiac pacing, or defibrillation.</li> <li>• Must auscultate the left upper quadrant of the patient’s abdomen for the “hum” of the VAD.</li> <li>• Usually have an internal cardiac defibrillator.</li> <li>• You will not be able to obtain a blood pressure.</li> </ul>	<ul style="list-style-type: none"> <li>• Pulsatile.</li> <li>• ECG is meaningless since there is no heart.</li> <li>• No compressions.</li> <li>• Do not provide synchronized cardioversion, external cardiac pacing, or defibrillation.</li> <li>• The TAH’s Freedom Driver is audible without a stethoscope, making a “galloping” type of sound.</li> <li>• Do not have an internal cardiac defibrillator.</li> <li>• Blood Pressure is obtainable utilizing a normal sphygmomanometer.</li> </ul>
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PROCEDURE CONT.	<ul style="list-style-type: none"><li>• Assist family and/or caregiver to troubleshoot mechanical circulatory support due to disconnection, power or mechanical failures.</li><li>• Provide patient care as clinically indicated per field treatment guidelines.</li><li>• <a href="#">Fluid Challenge AP-09</a>: Should be considered as a first line therapy for VAD patients.</li><li>• Collect all mechanical circulatory support equipment/information for transport with the patient.</li></ul>
KEY CONCEPTS	<ul style="list-style-type: none"><li>• Patient's family/caregiver should have direct 24/7 contact information for VAD/TAH program. VAD/TAH program should be contacted through Base Hospital to coordinate care and destination for the patient.</li><li>• When transporting patient with mechanical circulatory support device, ensure that extra batteries and charging device are brought with the patient.</li></ul>