



**Quick User Guide
For
mfE.M.T.TM (A.K.A 3DMP)**

**Getting Started
Performing Tests
Generating Reports**

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For more information please refer to our Full **3DMP User Manual** as well as our **3DMP Technical Manual**. Both are available 24/7 on our website at <http://www.premierheart.com>

You may login with your user name and password to access the “**Help Menu**” by clicking “**Help**” in the blue column on the left hand side

TECHNICAL SUPPORT is available Mon – Fri 9am – 5pm (516) 883-3383



PREMIER
H E A R T
mfE.M.T.™ Procedures

This document provides step-by-step instructions for commonly used procedures to prepare, enter patient data and to transmit data/generate reports using the Premier Heart **mfE.M.T.™** machine.

WARNING

TEST PATIENTS ON BATTERY POWER *ONLY*
REMOVE POWER CORD PRIOR TO TESTING

CONNECT AND DISCONNECT ECG CABLE WHEN UNIT IS POWERED OFF AND UNPLUGGED
*****NEVER** CONNECT OR DISCONNECT WHEN POWER IS ON OR POWER CORD IS CONNECTED***
CHARGE UNIT EVERY NIGHT LEAVING UNIT OFF

PATIENT PREPARATION

- Remove all electronics from the patient - phones, pagers, etc.
- Have the patient relax on their back 5-10 minutes prior to testing, check the pulse rate.
- Ensure that the ECG cable is not crossing any other wires or touching anything metal (i.e. Bracelets, anklets and or watches) and the metal screws of the limb clamps are firmly tightened.
- Lay the yoke between the patient's legs.
- Assure that the five lead wires fan out to their destination without crossing each other.
- Have the patient raise their right hand to identify side.
- Clean the patients' skin and the metal electrodes well with alcohol prior to placing leads. Shave the area if needed.
- Limb leads should be placed two-finger depth from crease in wrist and the same from the anklebone.
- For lead V5 follow the 5th intercostal space to the anterior axillary line, place electrode on skin and attach lead.

ENTERING NEW PATIENT INFORMATION and TESTING PATIENT

Note: If it is a repeat test highlight the patient in Patient List and click View; then go to step #4.
If Patient List is not open, select *Patient* at top of screen and click *List Patients*.

1. Click New on Patient List
2. Enter Info-Client ID-MUST use SS#. Height (cm) &
3. Weight (kg) (see conversion tables on back of **mfE.M.T.™** quick guide)
4. Click Test Tab at Top
5. Click New on Right Side
6. Click Sample
7. Click Record (Test can be aborted @ anytime if tracings warrants)
8. Select tracing Quality (Poor, Marginal, Good)
9. Click Send
10. If connected to Internet, proceed to Generating Reports, if not Please go to Transmit Pending Tasks

Notice: Please repeat at least two times to achieve an adequate and reproducible result.



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TRANSMIT PENDING TASKS

Note: This is only valid if the machine is not connected to the Internet at time of testing.

1. Turn Unit OFF—Connect Network Cable—Turn Unit ON
2. Click OK for Pending Tasks
3. Close Patient List
4. Click File
5. Click Transmit Pending Tasks
6. Click OK to close “All Pending Tasks have been Sent” Dialog Box

GENERATING REPORTS

1. First sign into web site: <http://www.premierheart.com>
2. Click login at top right corner of page
3. Enter your user name and password and click login
4. Click Patient List in blue column on left hand side
5. Click All Patients, or type in specific name of patient and click submit
6. Click Patients name you need to generate report for
7. Select Small box to left of the available test you want to base report on
8. Click Generate Report
9. Click Download Report
10. Click Submit Info
11. Select Open or Save report

ACCESSING REPORTS

1. Follow steps for Creating Report 1-6
2. Click Get PDF on the right side of the available Report list
3. Select Open or Save report



Severity Scores and Clinical Guidelines

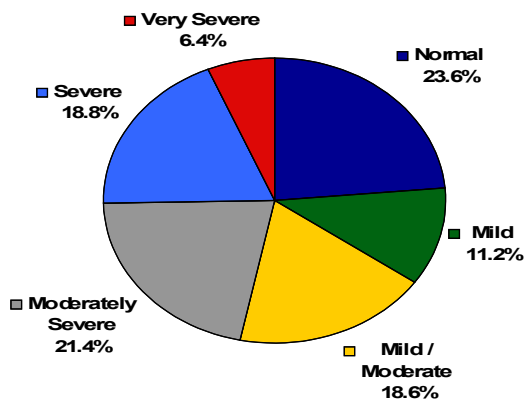
3DMP testing generates a report that includes a multiphase probability score of ischemic heart disease severity and additional index patterns suggesting the presence diagnoses or conditions. These findings require rigorous clinical validation and should be considered as expert opinion only and not a definitive diagnosis. 24/7 online consultation is available to physicians using 3DMP through Premier Physician Services, PLLC, a physician practice with experience and expertise in 3DMP diagnostics and cardiology. Consultations regarding clinical management, including alternative drug regimens, lifestyle modification, and timely surgical or percutaneous intervention, are available at \$75 per session.

Disease Severity Scores range from 0 to 22, with 0 representing no ischemic disease burden and 15 or greater as extremely severe ischemia. 3DMP scores are associated with specific clinical guidelines for triage and treatment. Primary care physicians or non-cardiac specialists can use 3DMP to help them determine when a referral to a cardiovascular specialist is warranted. Patients tested with **multiphase severity scores of less than 4.0 can be safely managed without specialty consultation.**

Scores	Clinical Guidelines	Treating MD
0	Clinically considered a normal test	Primary Care
$2 \leq x < 4$	Clinically a mild to moderately abnormal test indicating probable early evidence of ischemic heart disease	Primary Care
$4 \leq x < 7.5$	Clinically a moderately abnormal test indicating a high probability of < 70% coronary obstruction and regional ischemia.	Cardiologist & Primary Care
$7.5 \leq x \leq 15$	Clinically a severely abnormal test indicating a high probability of > 70% coronary obstruction and the potential for the presence of left ventricular dysfunction.	Cardiologist
$x > 15$	Clinically a markedly abnormal test indicating a high probability of multi-vessel coronary obstruction > 70% with severe regional and global ischemia, left ventricular dysfunction, ventricular arrhythmia, and the potential for severe hemodynamic abnormalities including cardiogenic shock.	Cardiologist

Patients with clinically moderate scores ($4 \leq x < 7.5$) should be referred for a cardiology consultation and nuclear myocardial perfusion imaging; however, half will have normal perfusion test results and will be continued on optimal medical therapy. This group of patients is at **high risk for myocardial infarction**. Two-thirds of heart attack or sudden cardiac death victims have less

than 50% cardiac narrowing prior to the event and 3DMP is the only available non-invasive test to reliably detect obstructions of <70% severity. Identifying high-risk patients with 3DMP allows physicians to closely evaluate their prescribed treatment regimens (and patient compliance). This greater visibility enables physicians to utilize optimal medical management and lifestyle modification, with adjunctive interventional or surgical intervention if needed, while the disease is reversible. All patients with scores of 2 or higher should be retested periodically since the severity score is a dynamic number able to change as conditions of myocardial perfusion change. All post-intervention patients should be carefully monitored for increases in scores related to either re-stenosis or progression of underlying disease.





SUGGESTED COURSES OF ACTION:

0 – No intervention is required. Maximize preventive measures including management of all identifiable risk factors, implementing diet and life style improvements as well as cardiac wellness management to optimize serum lipid-profile (total cholesterol of <130 mg/dl and LDL of <100 mg/dl). Follow up with annual 3DMP tests.

0 < x < 2 – Neither stress testing (which will more than likely be normal) nor intervention is required. Maximize preventive measures including management of all identifiable risk factors, implementing diet and life style improvements as well as cardiac wellness management to optimize serum lipid-profile (total cholesterol of <130 mg/dl and LDL of <100 mg/dl). Follow up with annual 3DMP tests.

2 ≤ x < 4 - Neither stress testing (which will more than likely be normal) nor coronary intervention is required. Maximize preventive measures including management of all identifiable risk factors, implementing diet and life style improvements as well as cardiac wellness management to optimize serum lipid-profile (total cholesterol of <130 mg/dl and LDL of <100 mg/dl). Annual 3DMP follow-up testing as well as outpatient monitoring for ischemia and ventricular arrhythmia are recommended.

4 ≤ x < 7.5 – Maximize preventive measures including management of all identifiable risk factors, implementing diet and life style improvements as well as cardiac wellness management to optimize serum lipid-profile (total cholesterol of <130 mg/dl and LDL of <100 mg/dl). Cardiology consultation, echocardiography, and nuclear myocardial perfusion imaging should be undertaken. If perfusion imaging is positive for ischemia, aggressive vascular intervention in the form of cardiac catheterization (in particular for those with test results showing local/regional ischemia) and optimal medical management are essential. If adjunctive testing is negative for ischemia, the patient should be treated with optimal medical management and observed closely for further changes in 3DMP scores. Post-intervention care should include periodic 3DMP follow-up testing as well as outpatient monitoring for ischemia, ventricular arrhythmia, and/or progressive CHF events. If ventricular arrhythmias or CHF with EF% < 35% are present based on 3DMP results and adjunctive evaluation, a referral for EP Consultation is appropriate.

7.5 ≤ x ≤ 15- Patient should be referred for urgent cardiology consultation, undergo further testing including echocardiography and nuclear myocardial perfusion imaging, and receive active consideration for coronary angiography and possible percutaneous coronary interventional procedures. (This also applies to a patient in the ER at the time of the test). Post-intervention care should maximize preventive measures including management of all identifiable risk factors, implement diet and life style improvements as well as cardiac wellness management to optimize serum lipid-profile (total cholesterol of <130 mg/dl and LDL of <100 mg/dl). 3DMP follow-up testing as well as outpatient monitoring for ischemia, ventricular arrhythmia, and/or progressive CHF events are recommended. If ventricular arrhythmias or CHF with EF% < 35% are present based on 3DMP results and adjunctive evaluation, a referral for EP Consultation is appropriate.

x > 15 – Consider inpatient admission for urgent cardiology evaluation, hemodynamic assessment, coronary angiography, and possible percutaneous coronary interventional procedures. Post-intervention care should maximize preventive measures including management of all identifiable risk factors, implement diet and life style improvements as well as cardiac wellness management to optimize serum lipid-profile (total cholesterol of <130 mg/dl and LDL of <100 mg/dl). 3DMP follow-up testing as well as outpatient monitoring for ischemia, ventricular arrhythmia, and/or progressive CHF events are recommended. If ventricular arrhythmias or CHF with EF% < 35% are present based on 3DMP results and adjunctive evaluation, a referral for EP Consultation is appropriate.



Some Practical Recommendations

For patients with angina: When a patient is symptomatic with angina pectoris, regardless of the **mfE.M.T.**TM scores, test them immediately with Echocardiography and Myocardial Perfusion Imaging. Patients with Angina Pectoris at rest or progressive forms of Angina should be referred to an Emergency Room for evaluation. Follow-up according to post cardiology workup or intervention as indicated below for 3, 6, 9, and 12 months follow-up tests.

For asymptomatic patients with one or two major risk factors, male > 40 and female > 50 initial test to establish a baseline,

- If a patient tests scores 0 - 2, repeat the test once/year. If the patient scores 2 – 4, repeat the test every 6-12 months.
- If a patient tests > 4, follow-up test frequency will depend on the degree of severity. For asymptomatic patients, If the score is 4 - 8, test every 6 months; If the score is > 8, test every 3-4 months.

For patients undergoing PCI or CABG:

- Establish a pre-intervention baseline
- Post-interventional testing every three months unless symptoms arise.

Pre-OP Medical Clearance for Patients Undergoing Non-Cardiac Surgery:

- For asymptomatic patients, test initially
 - o Scores > 4, cardiology consultation
 - o Scores < 4, cleared
- If symptomatic, regardless of the scores,
 - o Initial test
 - o Cardiology Consultation.

Disclaimer:

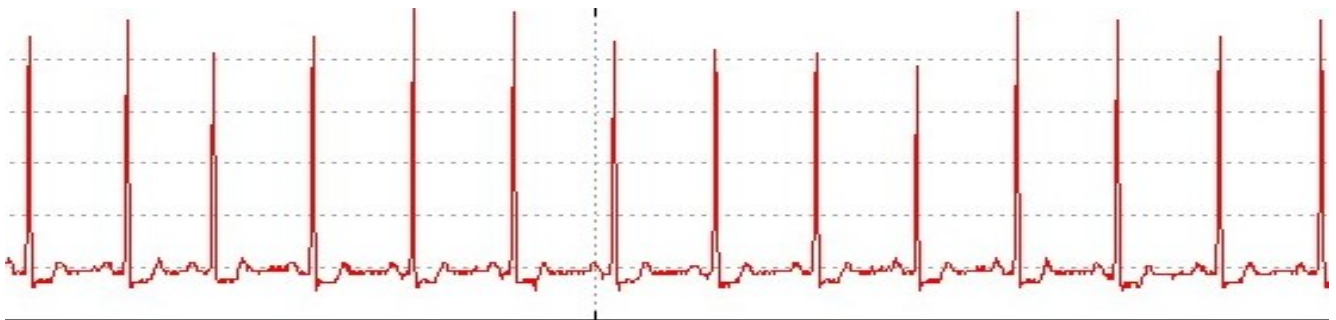
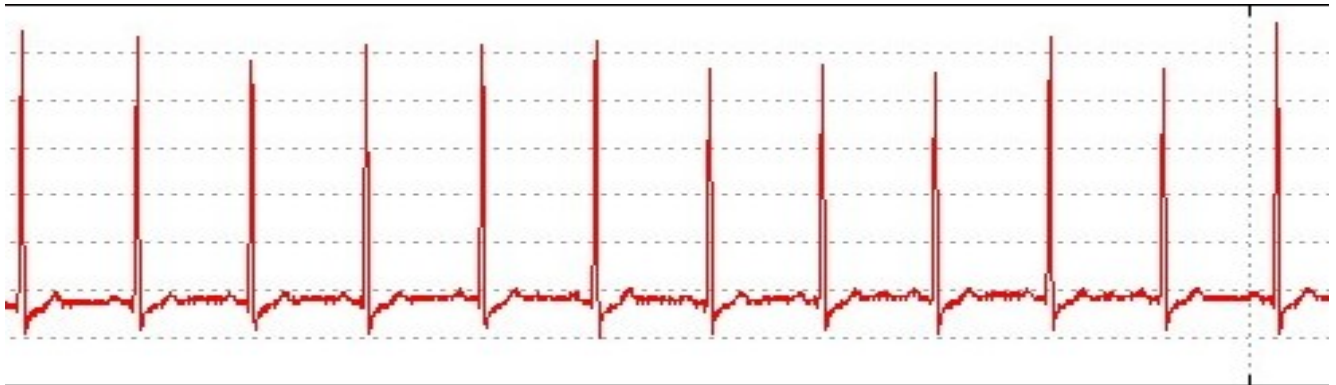
These preliminary recommendations/expert opinions are based on experiences accumulated over years of clinical research, from data on coronary patho-physiology, and published clinical treatment guidelines. Further clinical validation in the form of out-come trials will be required to refine, reject, or adopt these recommendations.



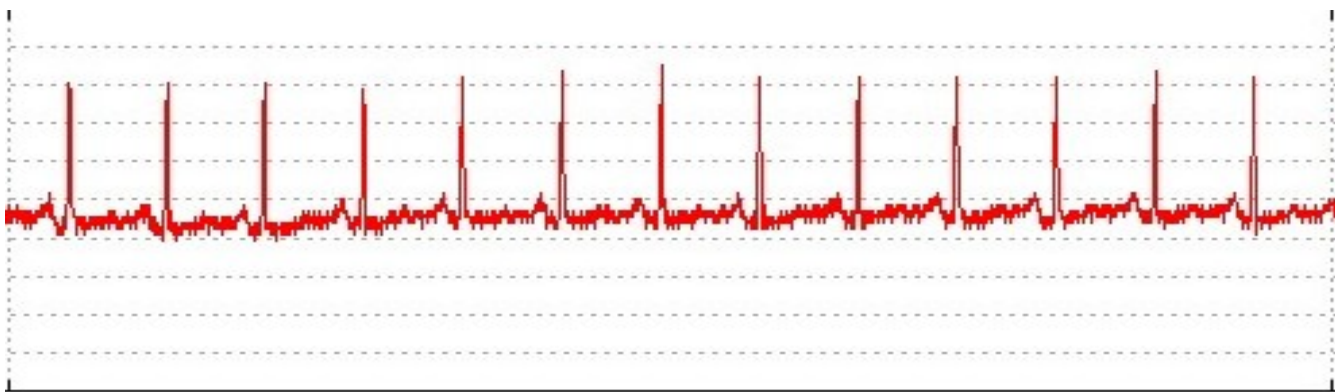
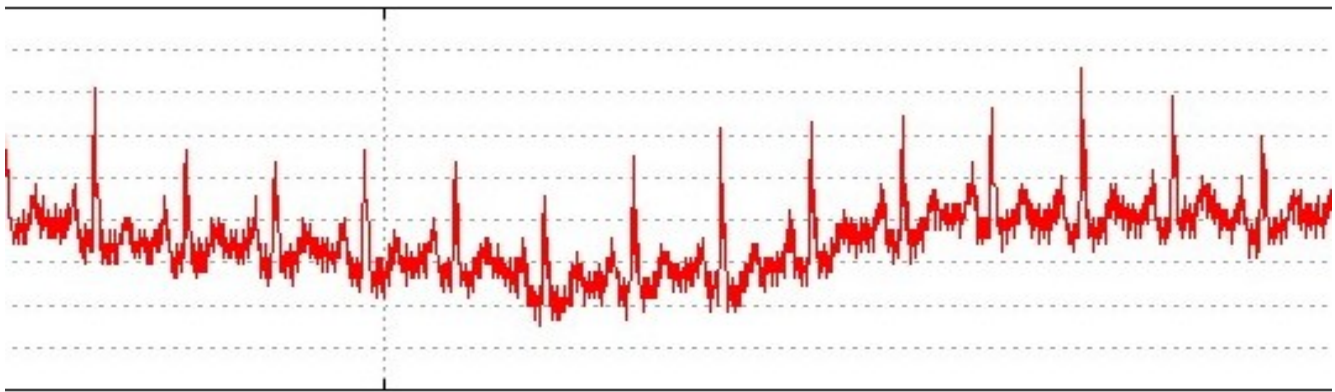
mfE.M.T.™ Tracing Examples

These are examples of the three categories of samples you must select from for each tracing you take. Note that the primary difference lies in the caliber of difference across the individual sample tracing, rather than between samples.

Good Quality Sample



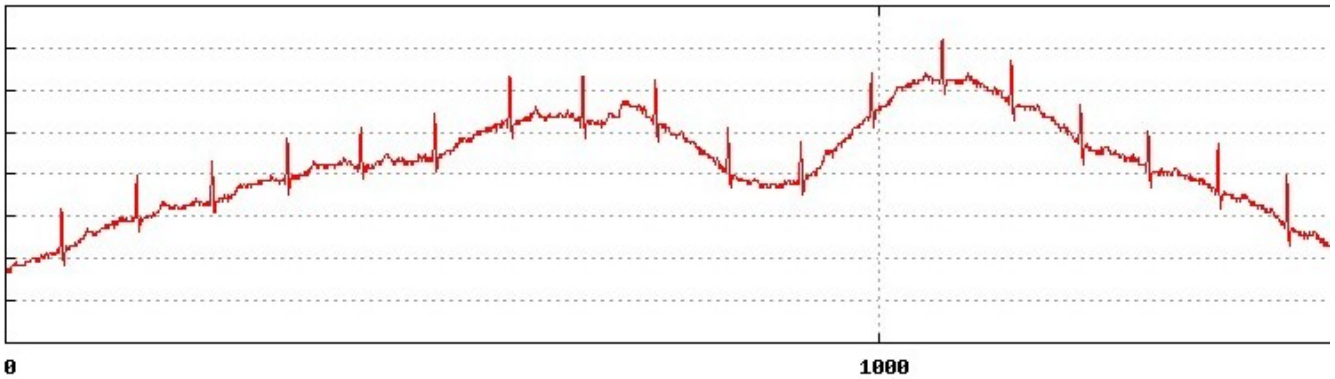
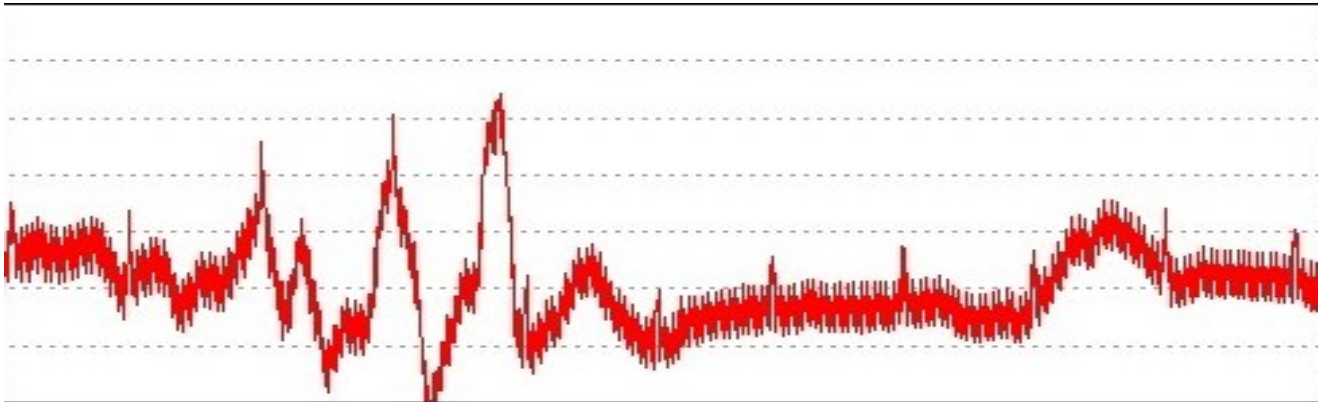

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Marginal Quality Samples



Marginal samples show minor variations in the baseline or noticeable levels of background noise, however the peaks are still clearly visible.

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Poor Quality Samples

Poor quality samples show significant fluctuations in the baseline and/or large amounts of noise. The peaks are indistinct or completely obscured.



0

1000



Height and Weight Conversion Table

This table allows you to convert from feet to centimeters and from pounds to kilograms.

CONVERSION TABLE

HEIGHT = in x 2.54		WEIGHT = lbs/ 2.2		
FT' IN"	CM'S		LBS	KG'S
4'8"	142		110	50
4'9"	144.5		120	54
4'10"	147		130	59
4'11"	150		140	64
5'	152.5		150	68
5'1"	155		160	73
5'2"	157.5		170	77
5'3"	160		180	82
5'4"	162.5		190	86
5'5"	165		200	91
5'6"	167.5		210	95
5'7"	170		220	100
5'8"	172.5		230	104
5'9"	175		240	109
5'10"	177.5		250	113
5'11"	180		260	118
6'	183		270	122
6'1"	185.5		280	127
6'2"	188		290	132
6'3"	190.5		300	136

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