

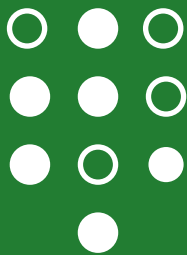


ESO-MED Family

# Electromagnetic Cancer Detector

A new electromagnetic diagnostic system  
for early screening of cancer

Prostate  
Breast  
Colon-Rectum  
Thyroid



..... **Automatic**

..... Non-Invasive

..... No side effects

..... No undressing

..... Fast examination

..... Immediate results

..... Ideal for early screening & follow-up



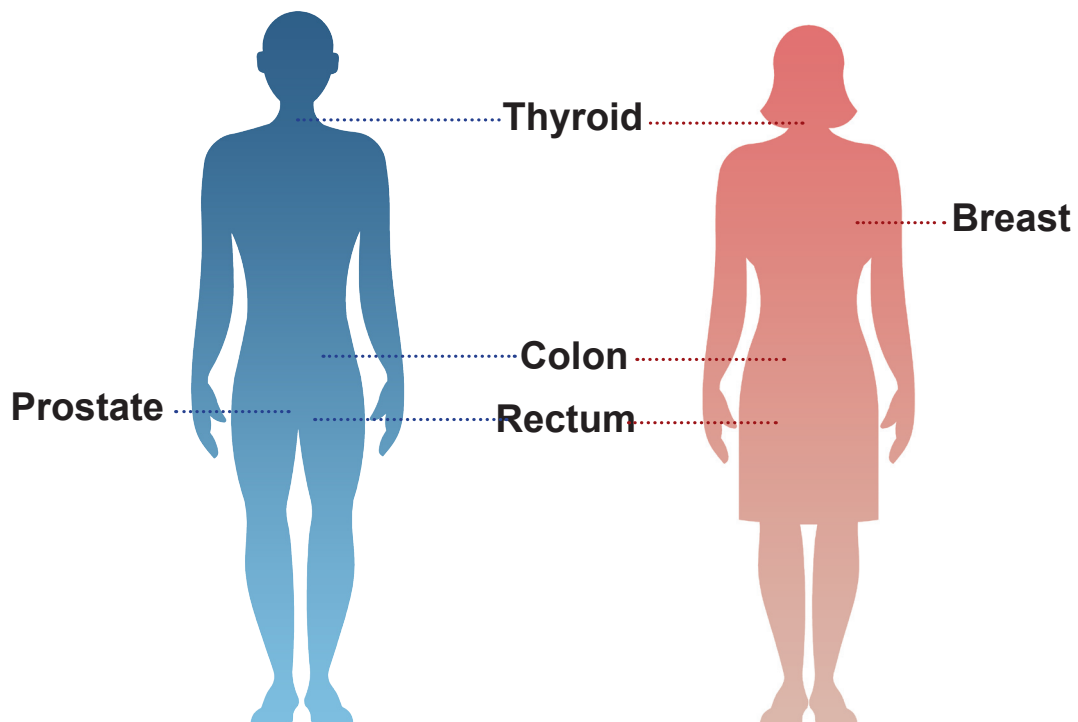
## A new family of systems performing non-invasive cancer detection

ESO-MED is a family of non-invasive cancer detectors that can **assist and complement** conventional cancer detection methods.

ESO-MED Family is the first cancer detection system that can be adopted to prevent unnecessary use of other uncomfortable and invasive diagnostic methods.

ESO-MED has **no side effects** and provides **immediate results**.

The ESO-MED technology is patented, its effectiveness has been proven by many scientific publications and it is mature for detection of cancer in the following organs: **Prostate, Colon-Rectum, Breast and Thyroid**.



## Advantages

### ESO-MED Family, an ideal device for cancer screening and clinical follow-up

<b>Automatic</b>	ESO-MED performs cancer detection automatically by simply pushing a button.
<b>Non-Invasive</b>	No introduction of devices and instruments into the patient body.
<b>No side effects</b>	No harm because it uses electromagnetic waves which are non ionizing. The electromagnetic waves have very low intensity and are comparable to one of a domestic remote control.
<b>No undressing</b>	The Exploring Probe is placed near the patient's body. No need for the patient to undress completely. Just dressed with underwear.
<b>Fast examination</b>	Typically the examination session requires five to ten minutes.
<b>Immediate results</b>	The diagnostic outcomes are available in real time and are presented in a easy-to-read graphical presentation.
<b>No image processing</b>	ESO-MED has detection capability of cancer without any need of imaging interpretation.
<b>High Sensitivity &amp; Specificity</b>	ESO-MED can assist and complement conventional morphological analysis. Riskless repeated examinations are also possible for clinical follow-up.
<b>Low cost of ownership</b>	ESO-MED cost of ownership is very low, thanks to its simple and reliable technology.

# Mono Specialist

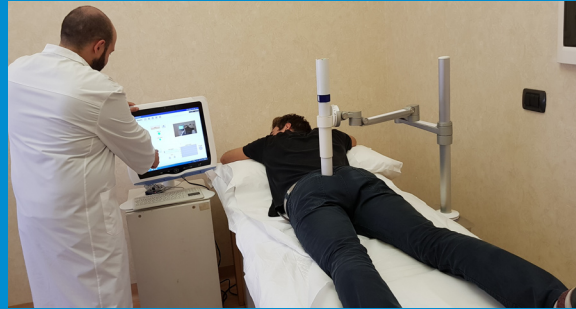
## Single Organ

### ESO-Prost

Ideal for screening of Prostate cancer

ESO-Prost provides non-invasive diagnosis of Prostate cancer. It is a complement to other conventional imaging methods for Prostate cancer detection.

The exam is very easy and the outcome is immediately available. Its high sensitivity and specificity can help to reduce the number of unnecessary biopsies.



### ESO-Colon

Ideal for screening of Colon-Rectum cancer

ESO-Colon provides non-invasive diagnosis of Colon-Rectum cancer. It is a complement to other conventional imaging methods for Colon-Rectum cancer detection.

The exam is very easy and the outcome is immediately available. Its high sensitivity and specificity can help to reduce the number of unnecessary colonoscopies.



### ESO-Breast

Ideal for screening of Breast cancer

ESO-Breast provides non-invasive diagnosis of Breast cancer. It is a complement to other conventional imaging methods for Breast cancer detection.

The exam is very easy and the outcome is immediately available. Its high sensitivity and specificity can help to reduce the number of unnecessary biopsies.



### ESO-Thyr

Ideal for screening of Thyroid cancer

ESO-Thyr provides non-invasive diagnosis of Thyroid cancer. It is a complement to other conventional imaging methods for Thyroid cancer detection.

The exam is very easy and the outcome is immediately available. Its high sensitivity and specificity can help to reduce the number of unnecessary biopsies.



## Multi Organ

ESO-MED is a new generation of diagnostic systems for the non-invasive, extracorporeal diagnosis of cancer in the following organs:

**Prostate, Colon-Rectum and Breast.**

ESO-MED is a complement to other conventional imaging methods for cancer detection. ESO-MED exam is very easy, do not require patient undressing and the outcome is immediately available.

# ESO-MED

## Ideal for multi organ cancer detection

**Prostate**



**Breast**



**Colon-Rectum**

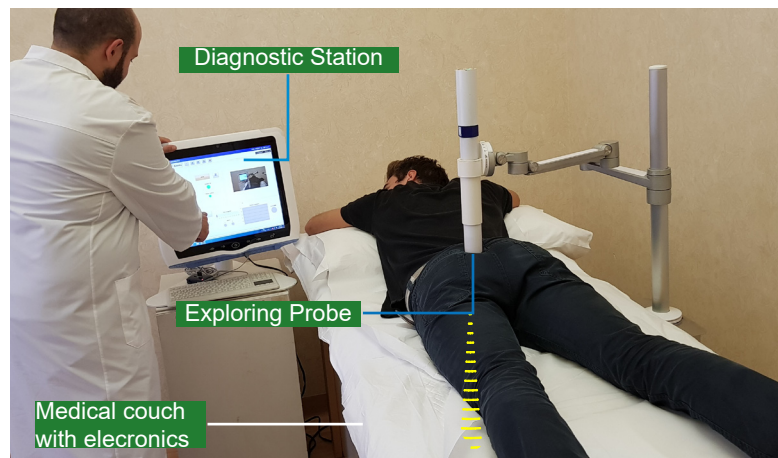


## How it works

### ESO-MED performs ECD Electromagnetic Cancer Detection

Cancer tissues are characterized by several forms of atypical behaviours. ESO-MED is able to detect different electromagnetic properties of malignant tissues in contrast to normal tissues.

ESO-MED exams are non-invasive and free of any side effects.



## System Components

ESO-MED is comprised of three components:

### Exploring Probe, Examination Couch Diagnostic Station

#### 1. Exploring Probe

The Exploring Probe generates radio frequency waves of very low intensity.

#### 2. Examination Couch

The Examination Couch is equipped with a Receiver detecting the radio waves generated by the Exploring Probe. After processing the signal, the Receiver sends the information to a Diagnostic Station.

#### 3. Diagnostic Station

The Diagnostic Station is a dedicated processor with a Diagnostic Software that provides the clinician with an easy-to-read diagnostic outcome.



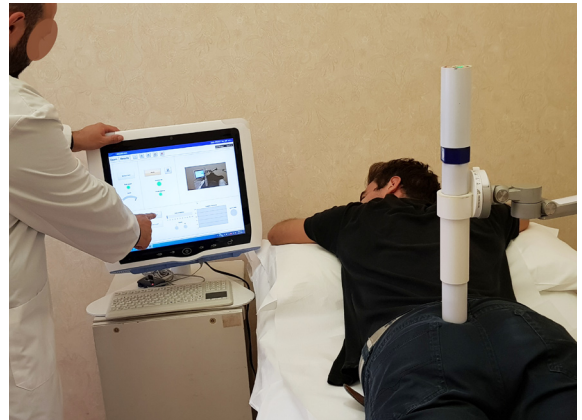
## How to use

The patient lies on the examination couch.

During the examination, the Exploring Probe is approached to the patient's body, in correspondence to the anatomical area of investigation.

Then the clinician starts the automatic cancer scan by simply pushing a button.

Diagnostic outcome is displayed in real time on the Diagnostic Station in a easy-to-read graphical presentation.



Prostate examination

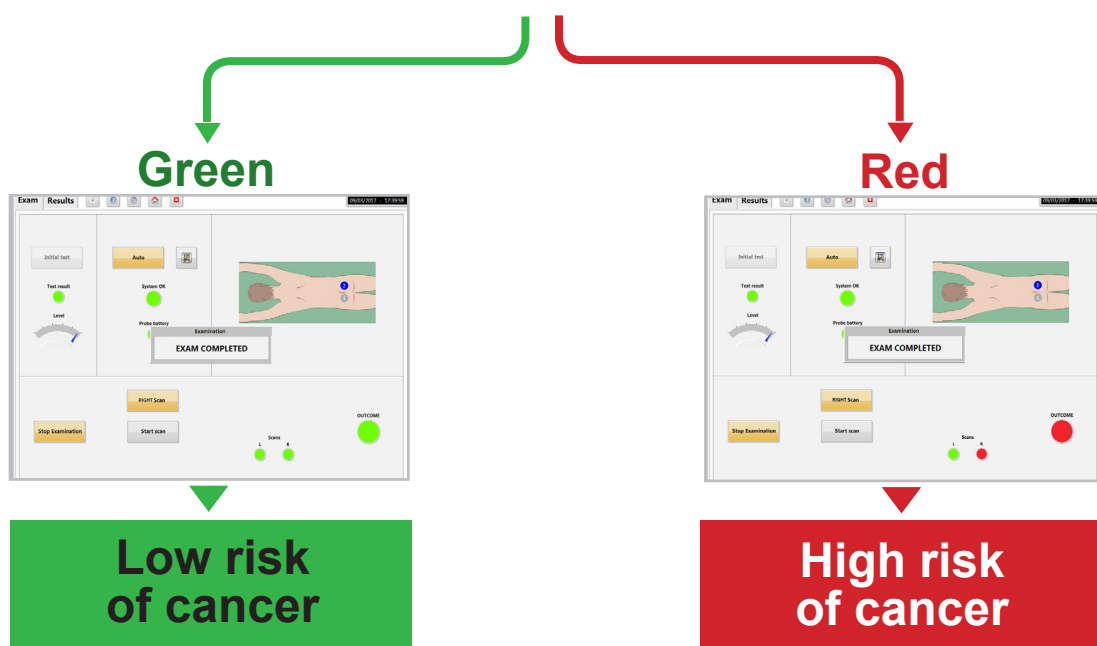


Thyroid examination



Colon examination

## Outcome



ESO-MED Family includes two different versions:

- **Mono Specialist**
- **Multi Organ**

### Mono Specialist

**ESO-Prost**  
Prostate

**ESO-Colon**  
Colon-Rectum

**ESO-Breast**  
Breast

**ESO-Thyr**  
Thyroid

### Multi Organ

**ESO-MED**  
Prostate,  
Colon-Rectum  
Breast

### Main Technical Data

#### Exploring Probe

Power Supply	Battery Powered
Dimensions (mm)	350 high, 800 extension

#### Examination Couch

Dimensions (mm)	1950 L, 750 W, 780 H
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#### Diagnostic Station

Power Supply	110/220 Vac - 50/60 Hz
Screen	17" Touchscreen
Wi Fi	802. 11 b/g

#### Certifications & Risk Classification

- CE Certification
- Test report compliance with international standards EN 60601-1, EN 60601-1-2, EN 60601-1-6, EN 62366
- Kiwa Cermet (Italy) approved
- Risk Classification Class IIa, Directive 93 / 42 / EEC

MEDIELMA is committed to the continuous improvement of its products, consequently specifications may change without notice.

## History of Technology

Research on the interaction of electromagnetic with biological tissues dates back to 1920, almost one hundred years ago.

In 1920 the pioneers in the field of radio frequency reported that *"malignant cancer tissue has a different behavior than normal tissues or benign tumors"*.

The technological advances following the Second World War made it possible to evaluate the biological interaction between blood cells and other biological tissues with radio frequency and microwaves.

In 1970s and 1980s studies continued on comparing malignant cancer tissue relative to the normal adjacent tissues in rats.

In early 2000s a first diagnostic device was designed and made available to the market. Since then, for over ten years, many trials have been done on thousands of patients and several new products were introduced into the market. ESO-MED is patented and it is the result of over fifteen years of trials and improvements.

## MEDIELMA Srl

Headquarters: Via Ippolito Nievo, 28/1 20145 Milano, Italy  
 Tel. +39. 02 84567187 +39 02 45498312 Fax +39.02 84567188  
 VAT 07302120964  
 info@medielma.it www.medielma.com

