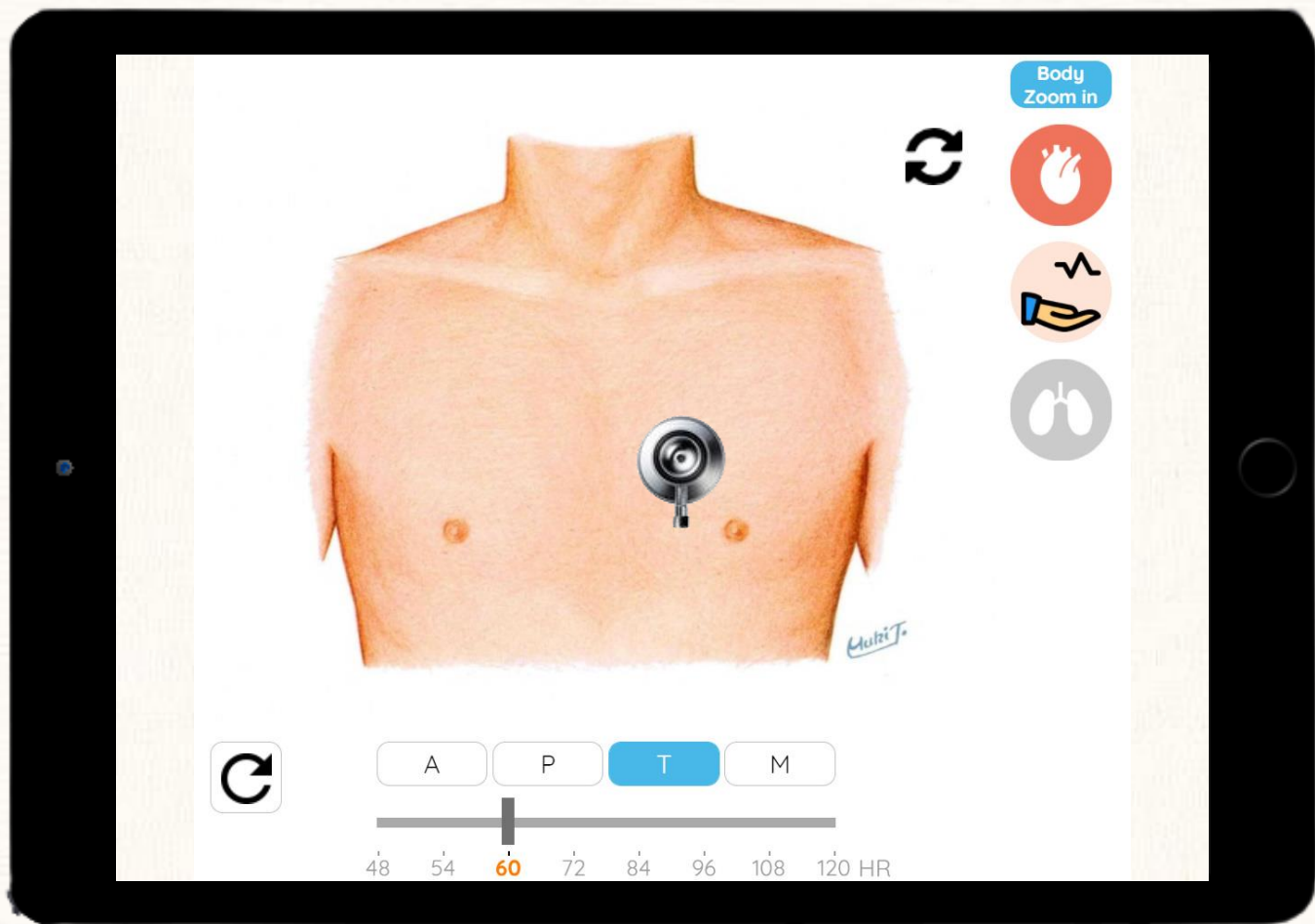


By using the "Kikuzo x Tablet" , Physical examination education system

iPax

product catalog

Inspection, Palpation, Auscultation, Examination



The iPax system is a cloud-based "Physical assessment education system" that was developed based on the ausculaide. We offer it on an annual contract.

The Kikuzo speaker (white box) and tablets are not included with the system.



Supervisor

Inspection, Palpation, Auscultation, Examination



Dr. Tsunekazu Takashina,
MD, PhD
JECSS president,
FACC, FAHA

The more you use an iPax with Kikuzo speaker, the more acquire auscultation skills.

The cardiology patient simulator "K" was developed in 1993. In 1997, in this study its educational effectiveness were reported in *CARDIOLOGY*. Even today, most of the university medical schools and medical colleges in Japan as well as many foreign countries have been using this simulator for their educational activities.

The advancement in diagnostic instruments using high technology has been remarkable in the last few decades. However, there is a tendency for many clinicians to become too dependent on these highly sophisticated instruments and to forget the importance of bedside clinical skills.

I believe that we have an excellent inborn sensor to recognize "organ language" and are able to detect minor changes of physical findings, such as heart sounds or murmurs of heart diseases.

The iPax and Kikuzo speaker are used as an exciting teaching tool, whenever and wherever the self-learning of auscultation is needed. Please start with normal heart sounds and advance to each case at your own pace. So, you will be able to recognize various abnormal sounds and murmurs. The "Kikuzo" will be a great auscultation aide for you.

Auscultation is an important skill for clinical practice.

Auscultation is an important skill for clinical practice.

Physicians can use the stethoscope whenever they want, which is an indispensable for discovering the etiologies and/or information even after the timing of modern technologies were applied.

Furthermore, auscultation itself can give preferable emotional effects with the confidence for patients.

Physicians should image the lung sounds for individual respiratory disease just before auscultation.

Learning of auscultation skills for discriminating the respiratory diseases is pivotal issue in the view of imaging specific lung sounds in each anatomical location.

In this regard, the "Kikuzo speaker and iPax" will provide an important and useful lung sounds for physicians, which can clearly and reproducibly learn the representative and/or essential lung sounds in general practice.



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Kyorin University School of
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Supervisor

Inspection, Palpation, Auscultation, Examination



Dr. Chiaki Hidai,
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Auscultation is not done with the ears, but between the ears.

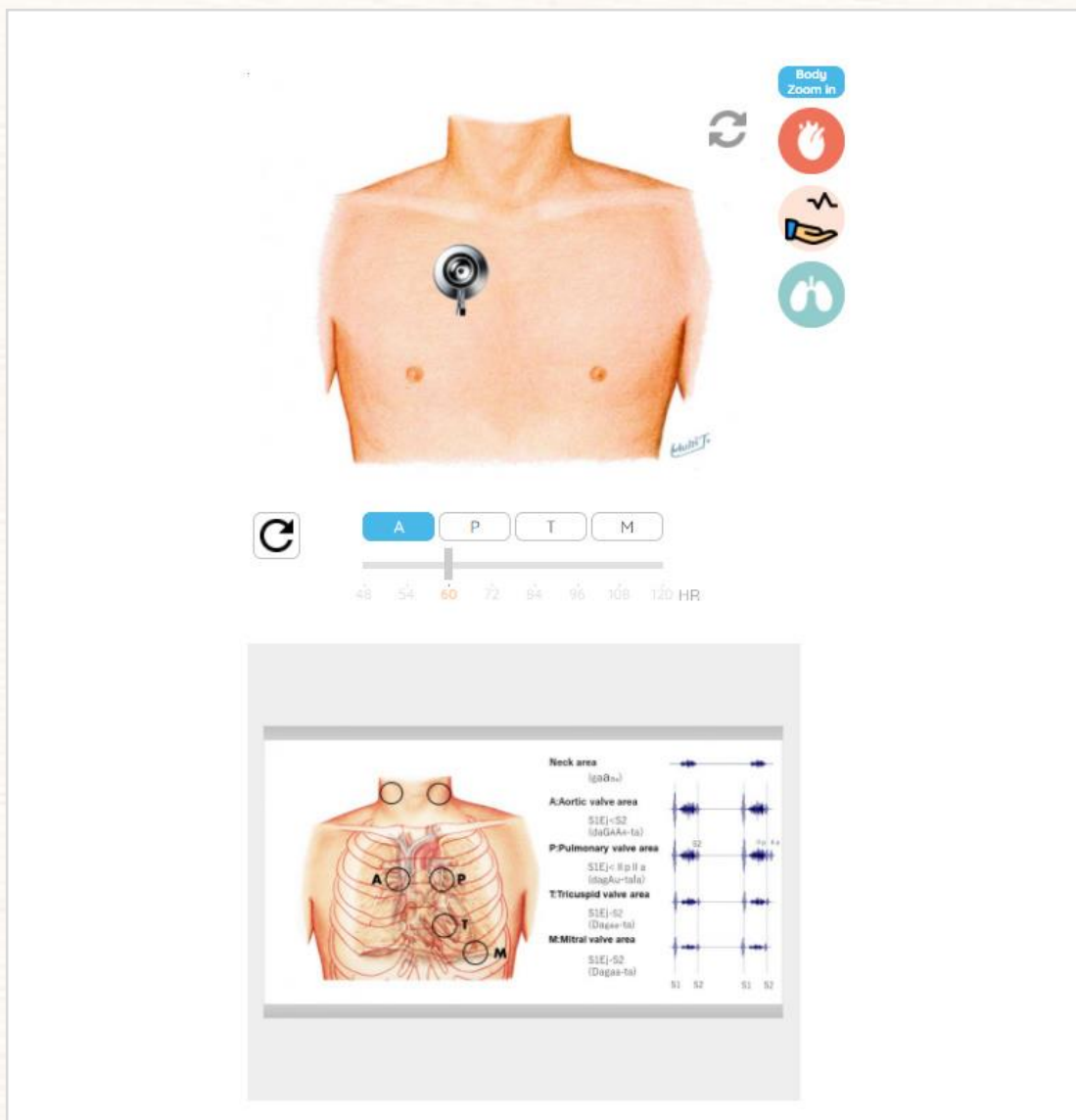
I remember 35 years ago when I first realized, "I have finally grasped the art of auscultation!" As a new intern I was assigned to the cardiology ward where one of my tasks was to listen to the chest sounds of a patient with five different cardiac conditions: mitral valve stenosis, mitral valve regurgitation, aortic valve stenosis, aortic valve regurgitation, and tricuspid valve regurgitation. But all I heard was a whirring sound and had no idea what it was. From that day on, every morning when I went to the ward, I spent dozens of minutes auscultating her chest. One day, about 10 days later, I suddenly heard several distinct sounds. I was able to differentiate the sound of mitral stenosis from that of aortic regurgitation. Auscultation is not something that can be understood by attempting it once. Listening carefully over and over again is what turns a noise into meaningful sounds. It is said that auscultation is not done with the ears, but between the ears. I encourage everyone to train what lies between the ears by listening carefully again and again.



Heart sounds cases

Inspection, Palpation, Auscultation, Examination

The chest piece is moved to the "anterior and/or posterior illustration auscultation area" on the screen to listen. At the chest piece area, sounds are heard. Below the chest illustration is a phonocardiogram.



After 6 minutes, the sound source stops.
To play the sound again, press "Refresh" at the bottom left of the screen.

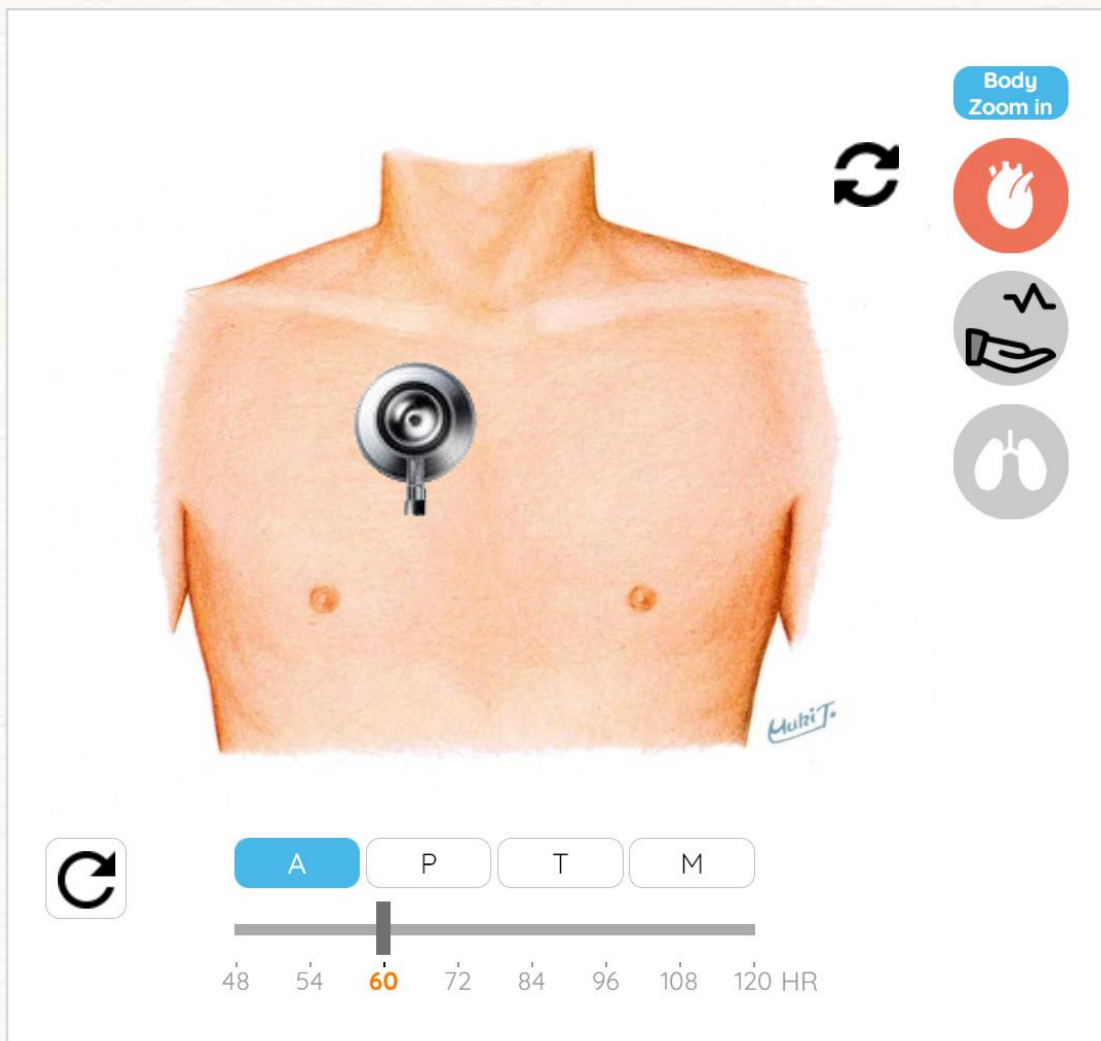


Heart sound cases

Lung sounds OFF

Inspection, Palpation, Auscultation, Examination

When lung sounds are turned off, only heart sounds are played. Press the "A, P, T, M" buttons under the chest illustration to move the chest piece to each area (strongest point) and listen the sounds of that area. Other than the "strongest point", the heart sound/murmur is decreased. HR can also be adjusted.



After 6 minutes, the sound source stops.
To play the sound again, press "Refresh" at the bottom left of the screen.

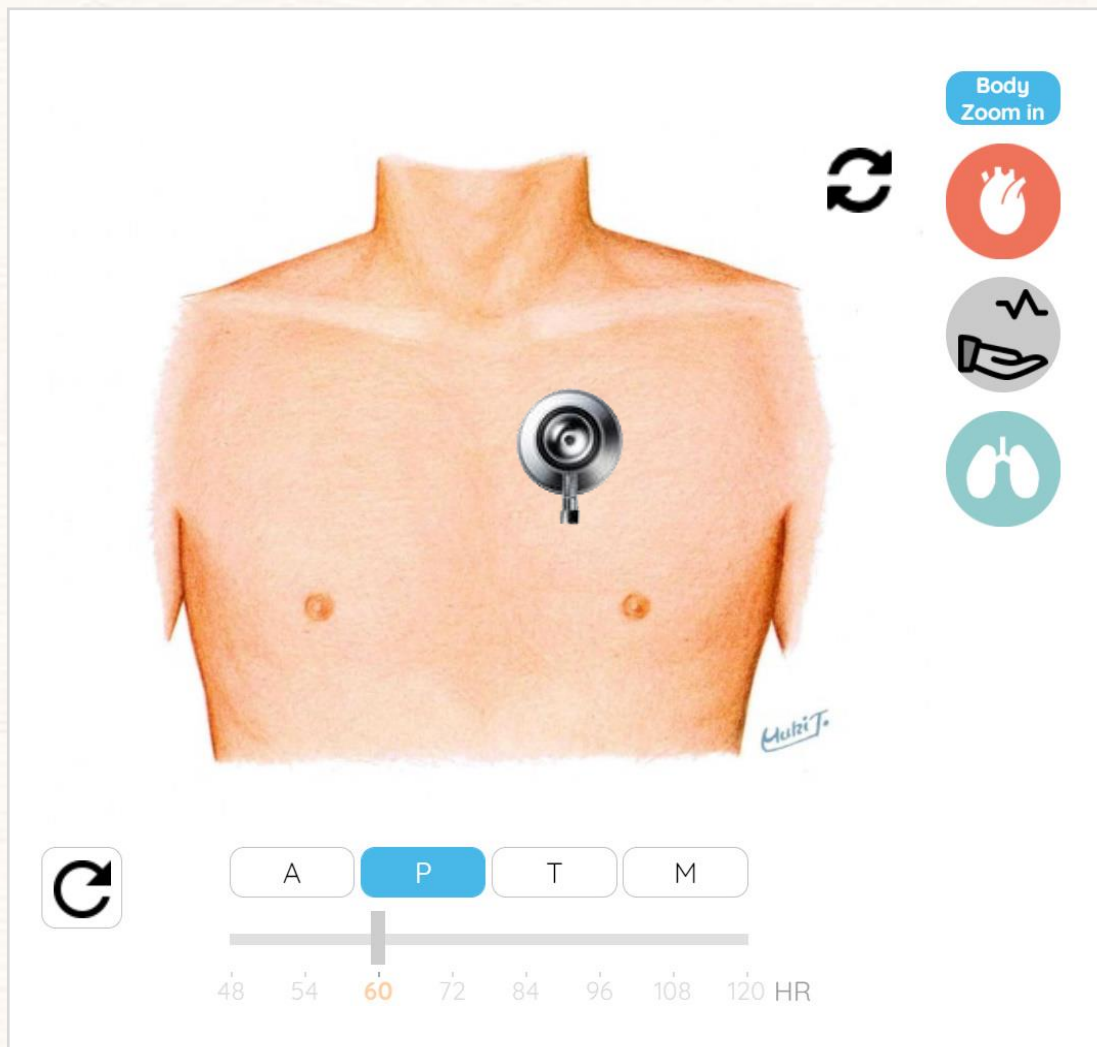


Heart sound cases

Lung sounds ON

Inspection, Palpation, Auscultation, Examination

If you turn on "lung sounds", you can listen to both heart and lung sounds at the same time. Press the "A, P, T, M" buttons at the bottom of the screen to move the chest piece to each area (strongest point) and play the sounds of that area. Other than the "strongest point", the heart sound/murmur is decreased.



After 6 minutes, the sound source stops.
To play the sound again, press "Refresh" at the bottom left of the screen.

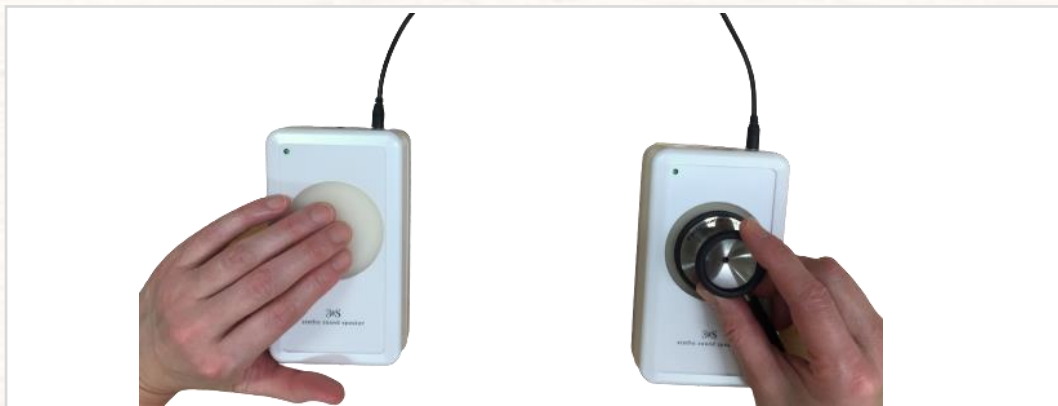
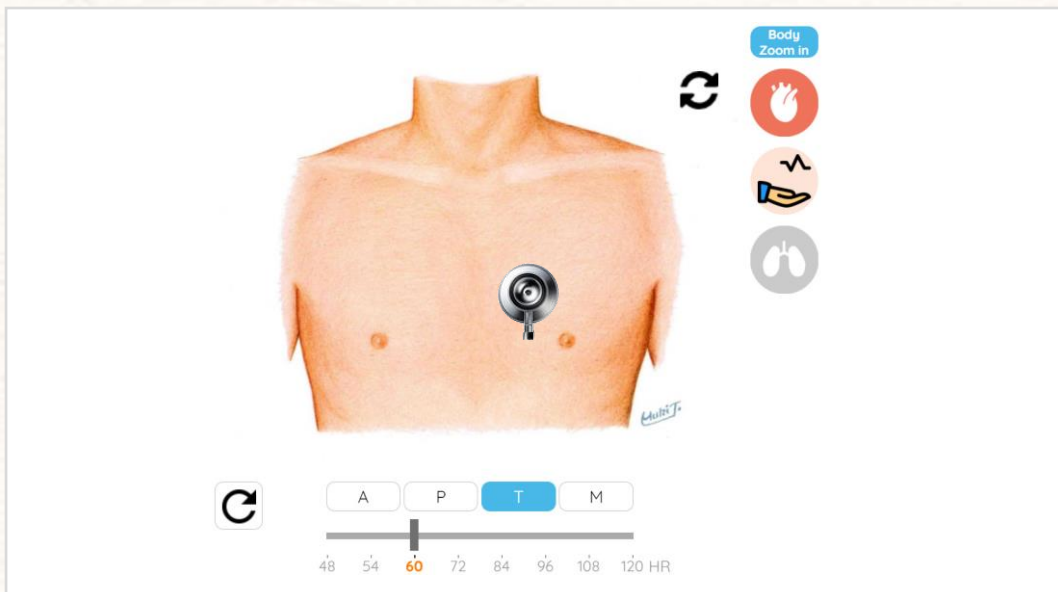


Heart sound cases

Pulse palpation ON

Inspection, Palpation, Auscultation, Examination


If you turn on the pulse function, you can listen to the heart sound while taking the pulse. In this case, you need two Kikuzo speakers as well as a stereo branch cable. For Kikuzo to the pulse side (L Side), turn up the volume and gently palpate the silicon surface. The pulse is adjusted to the timing of the radial artery.

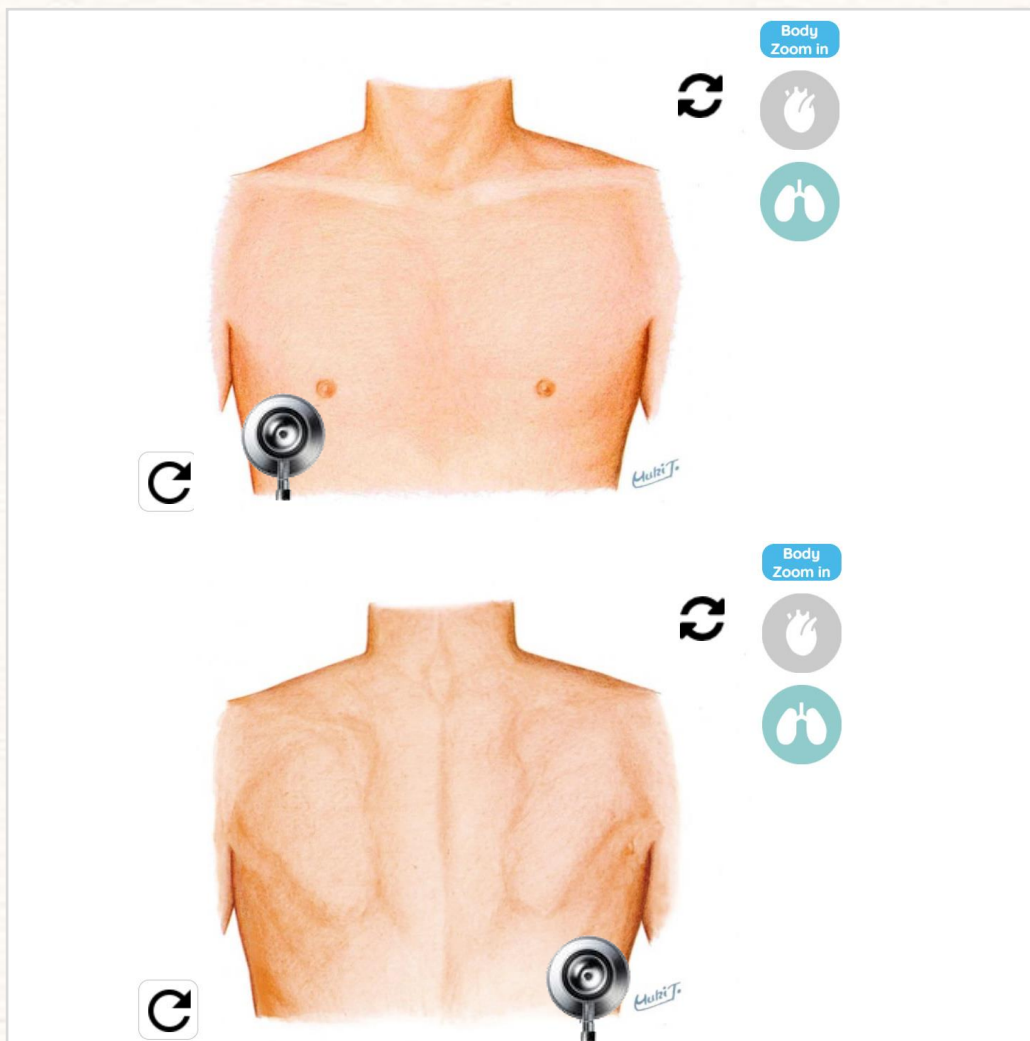




Lung sound cases anterior/posterior

Inspection, Palpation, Auscultation, Examination

For lung sound cases, the anterior and posterior are auscultated. When you move the chest piece, you can listen the lung sounds on that area. Press the  on the upper right of the screen to switch to the anterior/ posterior illustration.



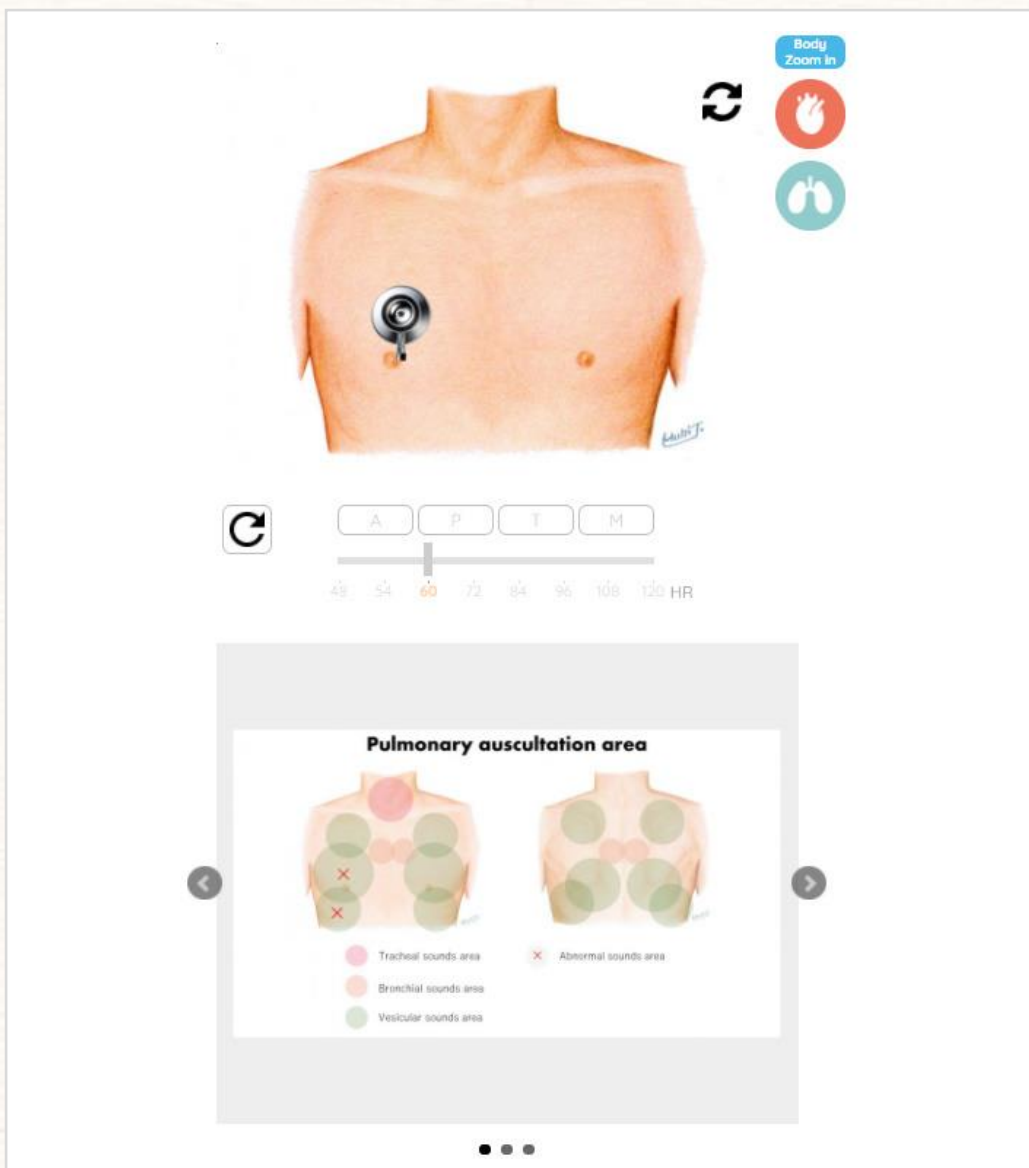
After 6 minutes, the sound source stops.
To play the sound again, press "Refresh" at the bottom left of the screen.



Lung sound cases Auscultation area

Inspection, Palpation, Auscultation, Examination

Markers indicate the auscultatory and abnormal areas under the chest illustration.



After 6 minutes, the sound source stops.
To play the sound again, press "Refresh" at the bottom left of the screen.

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"iPax"

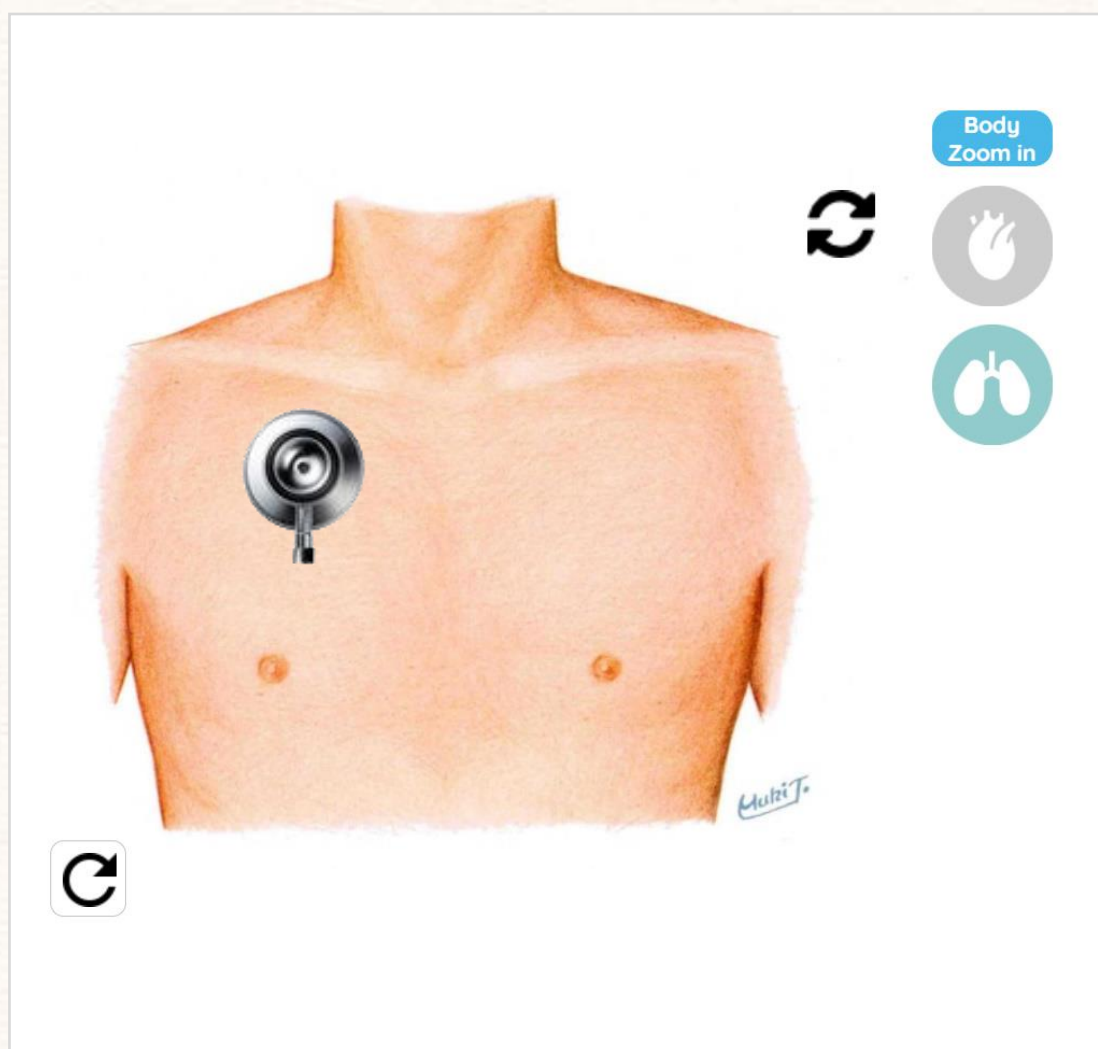


Lung sound cases

Heart sounds OFF

Inspection, Palpation, Auscultation, Examination

Move the chest piece displayed on the screen to listen to lung sounds. The heart sound can be switched ON/OFF, and it cannot be listened when it is OFF.



After 6 minutes, the sound source stops.
To play the sound again, press "Refresh" at the bottom left of the screen.

The auscultation sounds of the iPax are optimized for the Kikuzo speaker. You can use earphones or another speaker output, but the sound quality may differ.

By using the "Kikuzo x Tablet" , Physical examination education system

"iPax"

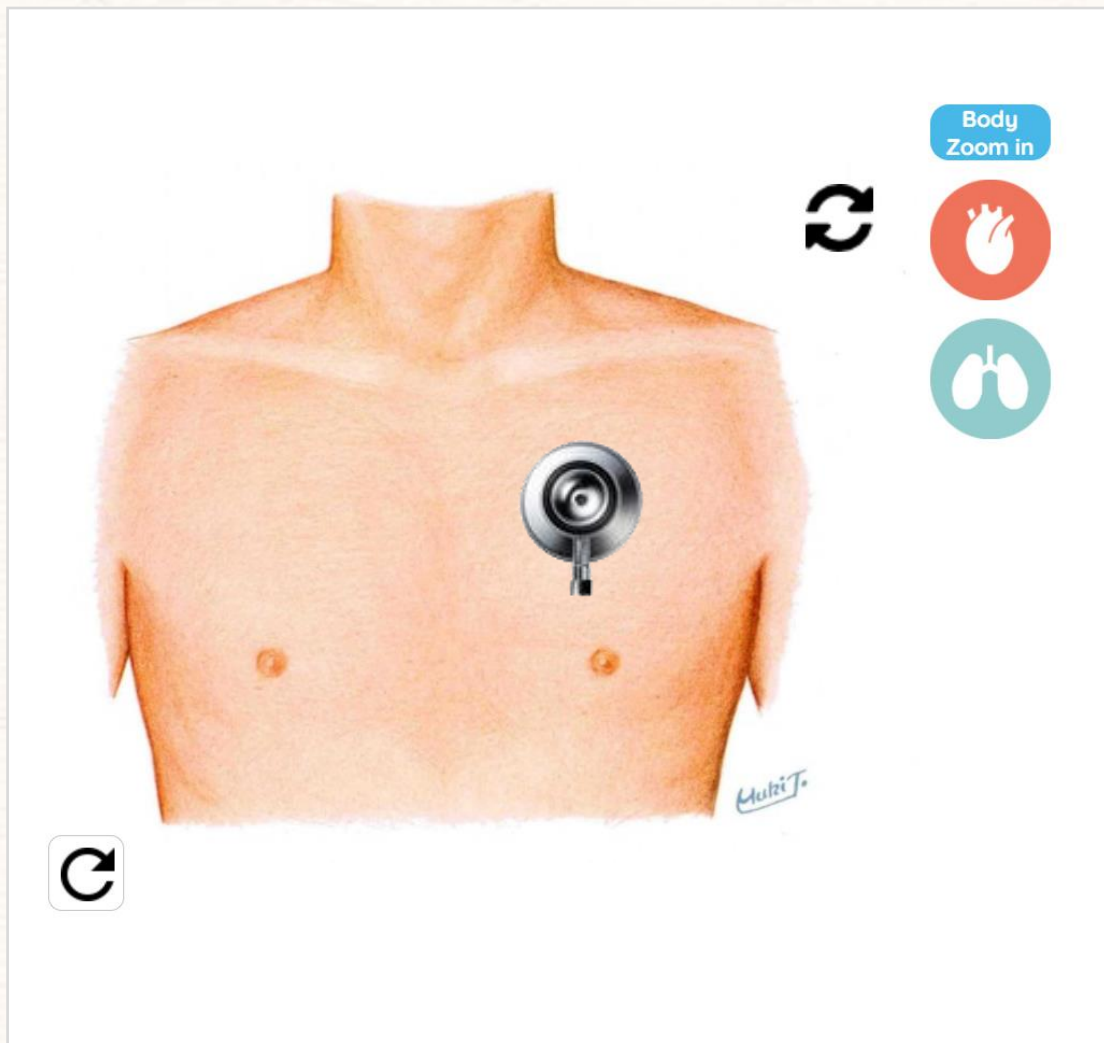


Lung sound cases

Heart sounds ON

Inspection, Palpation, Auscultation, Examination

Move the chest piece displayed on the screen and listen to lung sounds.
When you turn on the heart sound function, you can hear heart sounds along with lung sounds.



After 6 minutes, the sound source stops.
To play the sound again, press "Refresh" at the bottom left of the screen.

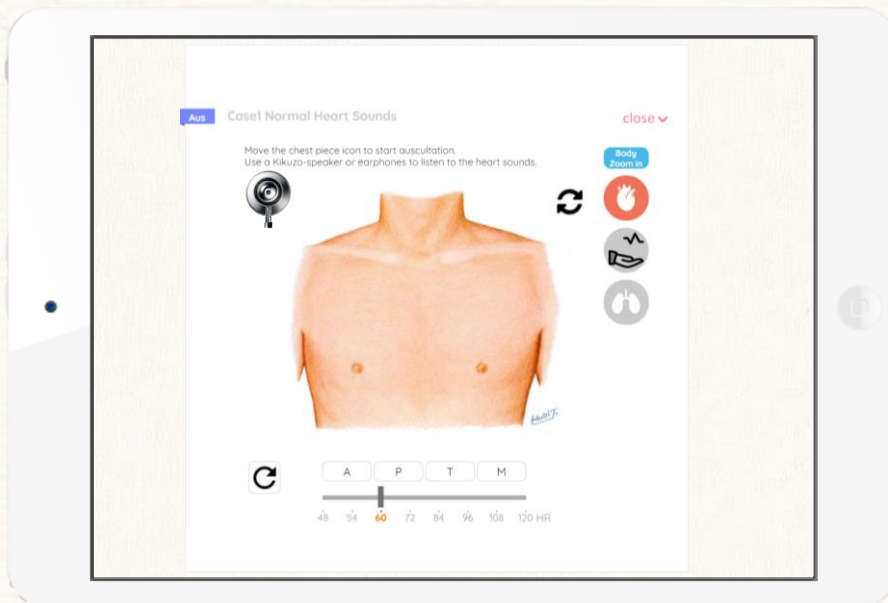
The auscultation sounds of the iPax are optimized for the Kikuzo speaker. You can use earphones or another speaker output, but the sound quality may differ.

Full-screen display and offline use

Inspection, Palpation, Auscultation, Examination

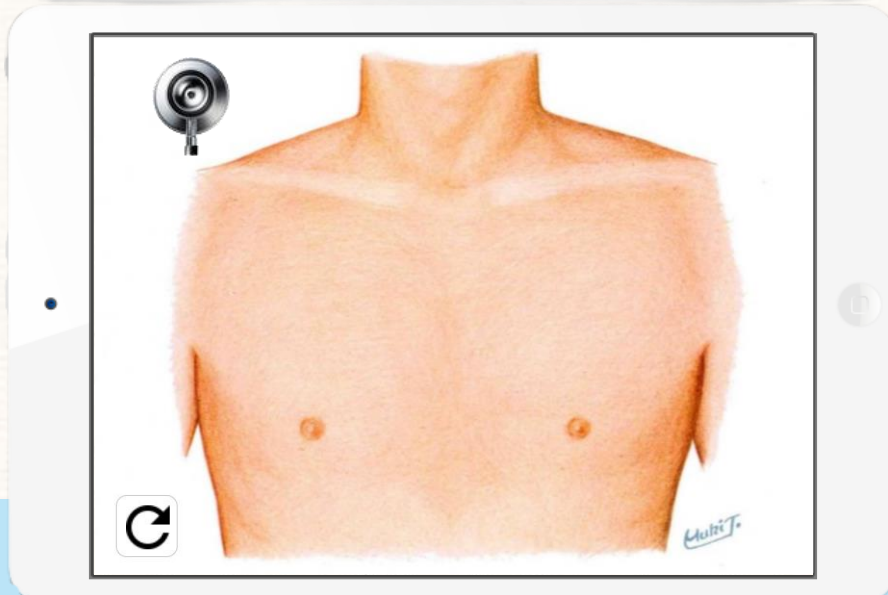
The chest illustration can be enlarged to full-screen. The screen is magnified with the heart, lung and pulse palpation settings and HR maintained just before magnification. In this full-screen mode, you can use it without an Internet connection. Also, the magnified screen does not display any information such as heart and lung icons or descriptive text.

Standard
screen



Full-screen
display

Offline use



After 6 minutes, the sound source stops.
To play the sound again, press "Refresh" at the bottom left of the screen.

Auscultation cases list

Inspection, Palpation, Auscultation, Examination

The following cases are included in the iPax.



Heart sound cases



Lung sound ON/OFF, pulse palpation ON/OFF, HR changes, full-screen and offline use



Lung sound cases

Anterior/posterior switch, Heart sound ON/OFF, full-screen and off-line use

1. Normal heart sounds
2. Normal S2 split
3. Abnormal S2 split
4. S3 gallop
5. S4 gallop
6. S4+S3 gallop
7. S4 S3 summation gallop
8. S4 S3 summation gallop 2
9. Pulmonary ejection sounds
10. Innocent murmur
11. Atrial septal defect
with pulmonary hypertension
12. Atrial septal defect
with pulmonary normotension
13. Aortic stenosis
14. Aortic stenosis early stage
15. Aortic regurgitation
16. Aortic regurgitation 2
17. Mitral regurgitation
18. Mitral stenosis
19. Hypertrophic cardiomyopathy
20. Tricuspid regurgitation
21. Pulmonic valvular stenosis
22. Ventricular septal defect
23. Patent ductus arteriosus
24. Mitral valvular prolapse
25. Dilated cardiomyopathy

1. Normal lung sounds
2. Weak bronchial sounds at left side
3. Decrease bronchial sounds and wheezes
4. Decrease bronchial sounds and wheezes 2
5. Amphoric breathing
6. Decrease vesicular sounds
7. Fine crackles
8. Fine crackles 2
9. Coarse crackles
10. Coarse crackles 2
11. Coarse crackles 3
12. Coarse crackles + rhonchi
13. Coarse crackles + rhonchi 2
14. Coarse crackles + rhonchi + squawk
15. Coarse crackles + rhonchi + squawk 2
16. Wheezes
17. Wheezes 2
18. Wheezes 3
19. Coarse crackles + wheezes
20. Peripheral friction rub
21. COVID-19 case
sounds for Day1、Day3、Day5、Day7、Day11

"iPax"

Examples of using iPax

Inspection, Palpation, Auscultation, Examination

Practical training on mannequin simulator

This combination reduces the waiting time for technique training.



Online classes

The "remote control function" allows the student to operate the chest piece on the screen.



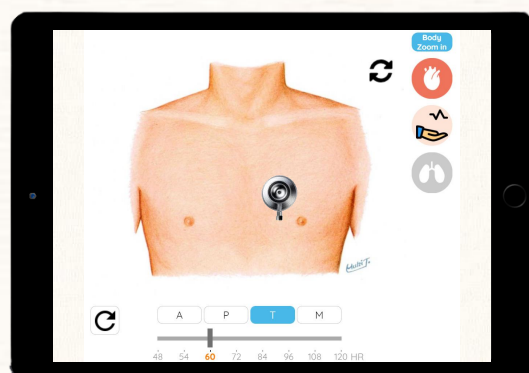
Class room lecture

You can view your iPax on the screen or use the online conferencing system to deliver the contents.



OSCE

We have almost all of the auscultation sounds necessary for medical university education.



If you listen with a pulse palpation, you need two Kikuzo speakers as well as a stereo sounds divided cable.

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"iPax"

Price and license

Inspection, Palpation, Auscultation, Examination

Available with an annual license.

**Please inquire about the price to a Kikuzo seller or
Telemedica Inc.**

mail to: ask@telemedica.co.jp

About licenses

We will issue you a license key to use iPax for one year. Only one terminal can be registered with a license key. You cannot register more than one terminal with a single license key.

Available terminals and browsers

There are no restrictions on which terminals can use the iPax. You can use it on your computer, tablet or smart phone as long as it has an Internet connection. However, the sound quality may differ depending on the performance of the terminal.
Recommended browser, Chrome or Safari.

Others

iPax does not include the Kikuzo speaker, terminals, or stereo branch cables.
Please purchase it separately.



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