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Your satisfaction is important to us. We're happy to assist you over the phone or via email.  
Please contact us directly at: **+1-844-606-7513** or email us at [balance@kingdevicktest.com](mailto:balance@kingdevicktest.com).

## **K-D Balance Operator Manual**

K-D Balance measures balance using motion sensors already built into the iPhone or iPod touch devices. K-D Balance utilizes a proprietary algorithm that calculates balance score based on the analysis of subject movements detected by the mobile device internal accelerometer. Balance is measured during a series of stances with the device secured to the subject with a device holder. Health care professionals follow the step-by-step voice guidance that runs after launching the app during the entirety of the test to ensure consistency in obtaining balance measures.

### **Indication for Use**

K-D Balance is an objective balance assessment tool and is intended to be used for individuals for whom a balance measurement is a desired outcome. K-D Balance is intended for use to assess balance performance. Individual suitability for assessment must be judged on a case by case basis, by a qualified individual including those certified or licensed in their state to prescribe and use balance devices such as certified athletic trainers and coaches, physical therapists, nurses, physicians, and other health care providers. Patients with conditions that could affect balance include, but are not limited to, vestibular dysfunction, nausea, headaches, orthopedic injury, inner ear infection or dysfunction, neurological conditions, head injury, medication side effects, dehydration and fatigue. K-D Balance can be used wherever an iOS mobile operating device is available. K-D Balance does not function as a diagnostic test. K-D Balance should be administered, and results should be interpreted by healthcare professionals

### **Intended Use Statement**

K-D Balance measures balance using a mobile iOS device's built-in accelerometer to detect movement and provides a quantitative balance score. K-D Balance is recommended for use with commercially available device holder for securing the device to the subject during testing. If issues arise regarding use of a device holder, contact King-Devick technologies, Inc. by email at [help@kingdevicktest.com](mailto:help@kingdevicktest.com) or by phone at (630) 501-0281. If there is a defect or malfunction of the device holder, it is recommended to replace the holder before performing K-D Balance testing for accurate measurements.

### **Warnings**

If the subject experiences difficulties during testing or is at-risk of falling, testing should be discontinued. K-D Balance testing should only be administered by a licensed medical professional, who is aware of the subject's medical condition. Conditions affecting balance performance include but are not limited to: brain injury, vestibular dysfunction, orthopedic injury, inner ear dysfunction, certain medications, nausea, dehydration, fatigue, and atmospheric pressure changes. These conditions may lead to balance dysfunction, therefore individuals who suspect their balance is impaired should consult their physicians. K-D Balance is not intended to diagnose or treat any medical conditions or diseases or replace an evaluation by a medical professional.

### **Contraindications**

Environmental testing conditions are important when using the device. Improper testing conditions include: soft or unstable ground, wet or slick floors, and environments with excessive distractions. These conditions may affect testing performance or be a potential hazard.

### **Precautions**

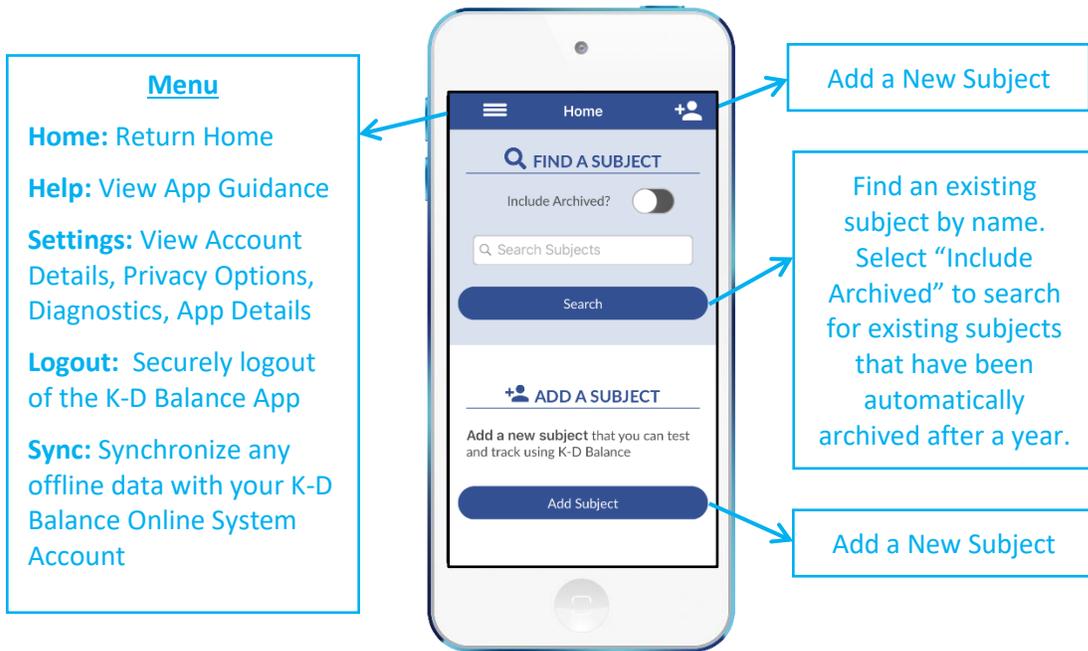
K-D Balance testing is recommended to be performed when the device is secured with a device holder. Testing should be administered by healthcare professionals only.

## **K-D Balance : Quick Start & Tips**

- ✓ The K-D Balance Mobile App is a companion to the K-D Balance Online System (BOS).
- ✓ For optimal performance, it is recommended to use the same calibrated device for testing.
- ✓ Connecting to Wi-Fi: See [Connecting to Wi-Fi](#).
- ✓ Set the Date, Time and Time zone:  
From your device Home Screen, tap the “Settings” icon then tap “General”. Scroll down and select "Date & Time". Turn on "Set Automatically". Ensure that the displayed time zone is the correct and current time zone.
- ✓ For optimum performance, be sure to update your device to the latest Apple operating system (iOS) and install the regular app updates made available. See [Installing a K-D Balance Update](#).
- ✓ Regularly connect your device to Wi-Fi to sync any off-line data to your BOS account.
- ✓ Do NOT press the home button or exit out of the app while the app is attempting to sync data. This will lead to an incomplete synchronization.

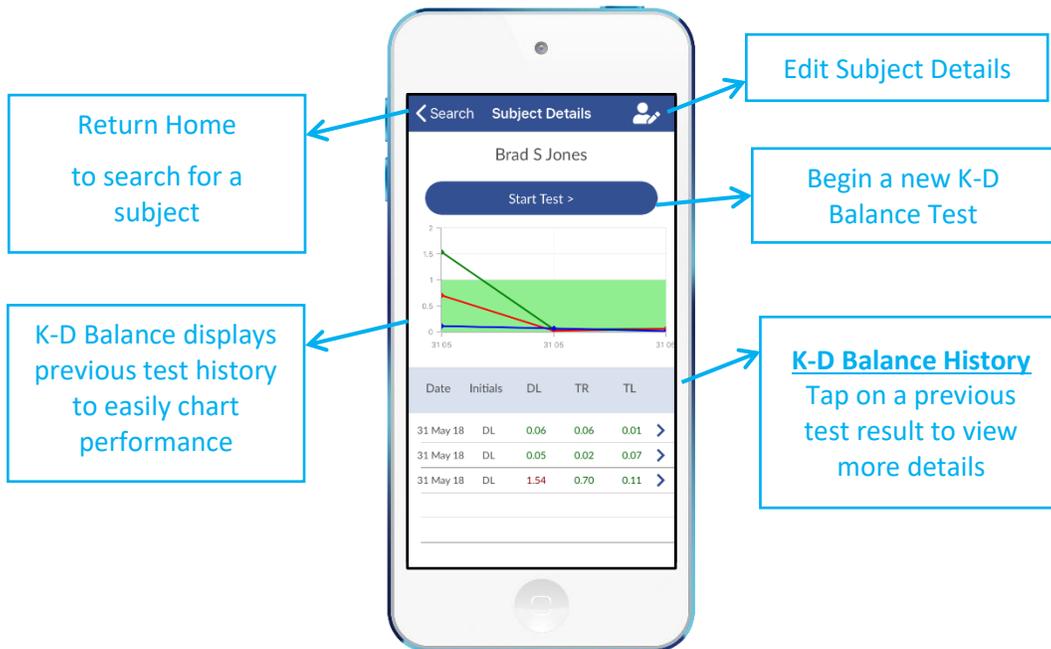
## Home

The Home screen allows you to quickly search for an existing subject in your account or add a new subject.



## Subject Details

The Subject Details screen displays K-D Balance test history.



## Connecting to Wi-Fi

Connect to Wi-Fi to sync your BOS account and update the K-D Balance app.

1. From your device Home Screen, tap on the “Settings” icon.
2. Tap on “Wi-Fi” from the left menu then turn the Wi-Fi on.
3. Select the appropriate Wi-Fi and enter the password. If you're unsure, contact your network administrator.
4. Once connected to Wi-Fi. The Wi-Fi indicator will appear in the top toolbar. Some networks will also require a separate browser-based log in. Tap on the Safari icon to launch the internet then log in or register your device to gain internet access.

### **TROUBLESHOOTING:**

- **Not sure if I'm connected to Wi-Fi**

In the K-D Balance app, tap “Settings” under the Menu. Tap “Diagnostics” then “Test Connection”. You'll be notified if the device is connected to Wi-Fi. Contact your network administrator if you're not connected to Wi-Fi.

## Downloading the K-D Balance App

1. From your iPhone or iPod Home Screen, tap on the “App Store” icon.
2. Search the iTunes App Store for “K-D Balance” and download the app.
3. Once downloaded, launch the app and log in with your BOS account username and password. If you've forgotten your password, tap forgot password.

## Add a Subject

1. Tap the “Menu” icon, then “Home”
2. Tap “Add Subject” or the Add Subject icon at the top right.
3. Enter the subject's details including Name, Subject ID, Date of Birth and Dominant Leg. The Dominant Leg is the leg that subject would kick a ball with.
4. Tap “Save” to save the new subject profile.

## Administering a K-D Balance Test

The K-D Balance App allows you to administer a K-D Baseline directly on the iPhone or iPod and sync with your BOS account. For optimal performance, it is recommended to use the same calibrated device for testing.

1. Select the subject that you would like to test.
2. Tap “Start Test”.
3. View the Test Preview
  - a. K-D Balance should be used with a compatible static device holder. Place the device in the device holder oriented vertically. Tighten the straps of the static device holder to position the device at the midline of the chest.
  - b. K-D Balance allows for three stances: Double leg, tandem right, tandem left.
    - Double Leg Stance:** the subject stands with feet together, places hands on the hips with the eyes closed.
    - Tandem Right Stance:** the subject stands with the right heel directly in front of the left toes with feet in one straight line, place hands on the hips, with eyes closed.
    - Tandem Left Stance:** the subject should place the left heel directly in front of the right toes with feet in one straight line, place hands on the hips, with eyes closed.

4. Tap “Continue”.
5. Select which stances to include in the K-D Balance test. Tap “Continue”.
6. Follow the K-D Balance audio guidance for the selected stance(s). When the subject is positioned in the testing stance, tap “Start Test”.
7. Following a 5 second countdown, the subject should maintain the stance for the 20 second duration of the test.
8. K-D Balance will continue to the next selected testing stance(s). Continue until all stance have been completed.
9. After all selected testing stances are complete, K-D Balance results are displayed. Enter tester initials, details on specific footwear used during testing, and any comments or notes.
10. Tap “Save Test” to save and return to the subject’s profile.

## **Installing a K-D Balance Update**

Regular updates to the K-D Balance App will occur to help optimize the app functionality. Check to see that your K-D Balance App is the most recent version and change your settings to ensure that you receive automatic app updates.

1. From your iPhone or iPod Home Screen, tap on the “App Store” icon.
2. Tap the “Updates” tab at the bottom to show available updates for the installed apps.
3. Be sure that you're signed in with your Apple ID. Find the *K-D Balance* App, then tap “Update”. The updated version of the K-D Balance App will begin installing.

To ensure that you receive automatic app updates, change settings to allow automatic updates.

1. From your iPhone or iPod Home Screen tap on the “Settings” icon.
2. Tap on “iTunes & App Store” then turn ON updates.

## Troubleshooting

Your satisfaction is important to us. We're happy to assist you over the phone or via email. Please contact us directly at: **+1-844-606-7513** or email us at [balance@kingdevicktest.com](mailto:balance@kingdevicktest.com).

### **Can't log in**

Check your Username and Password. The password entry is case sensitive. Check your internet connection. See [Connecting to Wi-Fi](#).

### **BOS and the iPhone or iPod are not syncing**

1. Ensure that you're running on the latest K-D Balance App version. See [Installing a K-D Balance Update](#).
2. Ensure that you're running on the latest Apple iOS. From your iPhone or iPod Home Screen, tap the "Settings" app then tap "General". Select "Software Update".
3. Log on to your BOS account via an internet connected computer at <http://balance.kingdevicktest.com>. Check to make sure that all your data is present.
  - If there is missing data, there is still offline data from the iPhone or iPod that needs to be transferred. See [Syncing the iPhone or iPod](#) and [Take a Snapshot](#).
  - If all data is present, see [Force Refresh](#) to sync your BOS data with your iPhone or iPod.

### **Syncing the iPhone or iPod**

Syncing the iPhone or iPod manually pushes all the local data on your iPhone or iPod to your BOS account.

1. Be sure the iPhone or iPod is connected to Wi-Fi. See [Connecting to Wi-Fi](#).
2. Once connected, tap the "Sync" button from the Menu. Once syncing is complete the date/time stamp will update.
3. If you receive an error, [Take a Snapshot](#) to create a backup and email support: [balance@kingdevicktest.com](mailto:balance@kingdevicktest.com).

### **Take a Snapshot**

A Snapshot creates a backup of the offline data from your iPhone or iPod to ensure that no data is lost.

1. Tap "Settings" from the Menu.
2. Tap "Diagnostics" then "Send Snapshot".

### **Force Refresh**

The Force Refresh feature manually pushes all the data on your BOS account to your iPhone or iPod.

1. Before choosing this option, log on to your BOS account via an internet connected computer at <http://www.balance.kingdevicktest.com>. Check to make sure that all your data is present.
2. Ensure there is no data pending synchronization on your iPhone or iPod. Tap "Settings" from the Menu and view under Account Summary that there are no local changes pending synchronization.
3. Be sure the iPhone or iPod is connected to Wi-Fi. See [Connecting to Wi-Fi](#). Tap "Settings" from the Menu.
4. Tap "Diagnostics" then "Force Refresh".

### **K-D Balance App crashes**

If the app crashes, always send crash reports. This will allow IT to assist in resolving the issue.

1. Ensure that you're running on the latest K-D Balance App version. See [Installing a K-D Balance Update](#).
2. Ensure that you're running on the latest Apple iOS. From your iPhone or iPod Home Screen, tap the "Settings" app then tap "General". Select "Software Update".

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