



Thrive Hearing Control: An app for a hearing revolution

By Chris Howes

In 2014, the first hearing aids connecting to smartphones were launched. Since then, smartphones, accessories like watches and other wrist-worn health trackers, and mobile applications have been gaining more functionality and are being built to tightly integrate into our daily lives. One major area of change has been in the health and fitness category, which is experiencing huge growth in the amount of apps and devices that communicate with smartphones. These apps and devices can help monitor physical and mental well-being to help with losing weight, tracking fitness, improving sleep patterns, monitoring health conditions, and yes, even assisting with hearing.

How does this focus on health and fitness impact how we help those with hearing loss? To borrow from Apple®, the company that arguably started this movement, it's time to "Think Different."

With Starkey®'s new Livio™ AI hearing aids, Thrive™ Hearing Control app, and a smartphone, the integration goes much further than simply making basic hearing adjustments and streaming audio. The Thrive Hearing app provides users with the most advanced and engaging functionality ever for hearing aids, from remote functionality, memory customization, the Thrive Wellness Score, and remote programming — this is truly a hearing revolution.

REMOTE CONTROL

The Thrive Hearing app's main screen is the home control screen; it provides users with the status of their hearing aid battery and wireless connection to the smartphone. On the home control screen, there is full control over the volume level of the hearing aid microphone(s) and the ability to mute the hearing aid(s) if desired.

The current, active memory is displayed and can be easily changed by accessing the memory menu. Once open, it's easy to see all available memory options and select a memory to use. The user can even create new custom memories based on those originally programmed by their hearing professional.



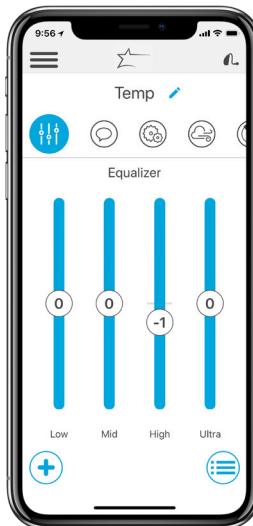
thrive™ + livio™ AI

CUSTOMIZE

The Thrive Hearing app Customize feature turns the smartphone into a personal-adjustment tool by providing the ability to modify the response for any of the professionally-programmed memories to better suit a particular environment or scenario. This feature is perfect for when a user wants to do some extra fine-tuning of the hearing aid response, specific to their current environment.

The Customize area provides complete flexibility for personalizing the performance of hearing aids in the following ways:

- Four-band Equalizer
- Personalized default volume level
- Control of adaptive features for Speech in Noise, Noise, Wind, Microphone Direction
- SoundSpace – easily adjust dozens of settings by simply moving a finger around the screen in SoundSpace.



Equalizer Screen

THRIVE WELLNESS

The Thrive Hearing app coupled with Livio AI hearing aids provides the user an easy, yet powerful way to monitor both body and brain health. Taking advantage of the integrated sensors, smart data-logging and artificial intelligence in Livio AI, the Thrive Hearing app compiles and calculates a Body Score, a Brain Score, and the overall Thrive Wellness Score. The combination of the body and brain health scores delivers a good overall assessment of health and well-being called the Thrive Wellness Score (200 points possible).

BODY SCORE

The Body Score is a measure of progress towards three daily goals: Steps, Activity and Move. The Thrive Hearing app provides a detailed visualization of these goals.

- **Steps** – shows the number of steps taken during the day and can be expanded to show time of day and distance.
- **Activity** – shows the number of minutes that the user was active at more than a basic walking pace and can be expanded to show time of day when the user was most active.
- **Move** – displays the number of hours during the day, when the user was up and moving for at least one minute.



Body Score Screen

The combination of these goals leads to a maximum Body Score of 100. The Thrive Hearing app maintains a history of the Body Score to show progress over time. In addition, the Thrive Hearing app is also integrated with Apple® Health and Google® Fit to share activity data related to the Body Score.

BRAIN SCORE

The Brain Score is a measure of user progress toward three daily goals: Use, Engagement and Active Listening. The Thrive Hearing app utilizes data in the hearing aids to provide a direct visualization of progress toward these goals.

- **Use** – measures the amount of time the hearing aids are worn. A study in the *Journal of the American Geriatrics Society* (2015) found that wearing hearing aids reduces the risk of cognitive decline associated with hearing loss.
- **Engagement** – measures how much time is spent in environments where the user engages in conversation with others or streams audio, like phone calls. This is important because it was found that most people who currently wear hearing aids say it positively affects their ability to participate in group activities (Better Hearing Institute, n.d.).
- **Active Listening** – measures the variety of environments and situations experienced throughout the day. The greater the variety of environments encountered, the more enriched the brain will be by the stimulation from those environments.

The combination of these goals leads to a maximum Brain Score of 100. As it does with the Body Score, the Thrive Hearing app maintains a Brain Score history to show progress over time.

The Body and Brain score are combined to yield a Thrive Wellness Score with a maximum of 200.



Brain Score Screen



HEARING CARE ANYWHERE

Hearing Care Anywhere™ is Starkey's new remote programming feature. It has two primary functions: Automatic Backup and Remote Adjustment.

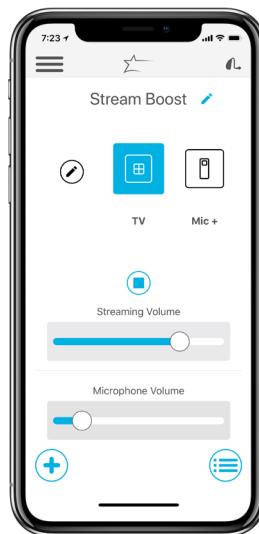
Automatic Backup – When the user creates an online account, the hearing aid and app settings information is automatically backed up to cloud storage. For those who may use the Thrive Hearing app on their iPhone® and iPad®, cloud connectivity via Hearing Care Anywhere allows real-time synchronization between these devices.

Remote Adjustment - Hearing professionals can enable Livio or Livio AI for remote programming using the Inspire® software. Once activated, the Thrive Hearing app recognizes that the feature is enabled and provides the user a simple, guided method to request remote adjustments from their hearing professional. After the professional answers the request, the user can preview the new changes and compare them to their current settings. The preview option has no time constraints or forced acceptance. The user is free to take their time to compare settings in the actual environment, i.e., restaurants that may have given them trouble, and thereby deciding which setting provides the best performance.

Accessories - The Thrive Hearing app knows when Starkey's new Starkey Hearing Technologies TV and/or Remote Microphone + accessories are paired to the hearing aid(s) providing additional flexibility to choose the desired accessory, start/stop audio streams, and control the mix of volume from audio streams and the hearing aid microphones.

TRANSLATE

Thrive offers even more to help facilitate connections and communication with others by integrating a multilingual, machine translation service. When paired with Livio AI devices, the Thrive Hearing app supports near real-time translation of 27 different languages, and the translation streams directly to the user's ear in the preferred language. By taking advantage of powerful processing tools in the phone and in the cloud, the Thrive Hearing app can listen for two different languages that are part of a conversation, recognize the user's language, transcribe it into text, and translate it for the communication partner to view on the phone. The communication partner can then reply, and the Thrive Hearing app will detect their language, transcribe it to text, translate it to show in the user's language on the phone, and stream it to play in the user's ears through the Livio AI hearing aids.



Accessory Screen



Translate Screen



thrive™
+
livio™ AI



CONCLUSION

The Thrive Hearing Control app is a full-featured, easy-to-use app that puts the user in control of their Livio AI hearing aid(s). The Thrive Wellness score, with Body and Brain tracking, allows patients to monitor their daily, physical and mental activities, promoting an active and healthy lifestyle. Users can access Hearing Care Anywhere to remotely request and receive adjustments from their hearing professionals, allowing them to compare their current and newly-received hearing aid settings in the actual environments where they were struggling. The Thrive Hearing app also provides an amazing array of features designed to enhance the listening experience in an easy-to-use app that makes working with hearing aids an engaging and personalized experience.

REFERENCES

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