

Multimedia Appendix 1

Virtual World Adjunct versus Conventional Cardiac Rehabilitation Program for Phase 2

Randomized Controlled Trial

Virtual World	Conventional
<i>Outpatient baseline visit</i>	

All participants will be provided with the following materials:

- Education materials binder with slide presentations
- Mayo Clinic Heart Healthy for Life book

Baseline assessments will include:

1. **Questionnaire completion:**

sociodemographics, medical history, prescribed medications/adherence, smoking status, heart disease knowledge, diet quality, physical activity patterns, self-efficacy and quality of life

2. **Anthropometric obtainment:**

height weight, body mass index, waist circumference, blood pressure

3. **Laboratory studies:**

lipid panel, hemoglobin A1c

4. **Oxygen consumption exercise treadmill test**

Computer/Device Training Session

All participants will participate in a 2-hour training session and will be provided with the following materials:

- Personal laptop computer
- Personal headset
- Personal activity tracker (Fitbit™)
- Instructional manual binder for virtual world or Internet-based materials

Participants will receive basic training on:

- Laptop, headset and activity tracker hardware
- Connectivity and web browsing
- Procedures for uploading activity tracker data
- Basics of Second Life® environment including navigation, creation of avatar and communication techniques
- Each participant will be assessed on ability to log-in to virtual world platform and basic skills.

Participants will receive basic training on:

- Laptop, headset and activity tracker hardware
- Connectivity and web browsing
- Procedures for uploading activity tracker data
- Online curriculum materials on healthy lifestyle change

Education Sessions

- All sessions will occur on the Mayo
- All sessions will occur on-site at the

Clinic virtual world platform,
Destination Rehab

- One-hour session on a weekly basis
- Education delivered by interdisciplinary team including cardiovascular disease specialist, cardiovascular nurse, dietician and exercise physiologist (alternating roles of facilitation and participant chat)
- Slide presentations of key health topics and curriculum (see Table 1) followed by group discussion
- Participant “field trip” tours to the following interactive spaces to learn and practice healthy lifestyle behaviors:
 - o Grocery store
 - o Fitness center
 - o Restaurant
 - o Virtual library
 - o Human heart tour

Mayo Clinic outpatient cardiac rehabilitation facility

- Face-to-face sessions offered throughout cardiac rehabilitation enrollment schedule
- Education delivered by interdisciplinary team including cardiovascular disease specialist, cardiovascular nurse, dietician and exercise physiologist
- Standard cardiac rehabilitation curriculum (see Table 1) delivered via slide presentations (education binder) and group discussion forums
- Video presentations also available for individual viewing at own convenience
- Prior to or following each session, participants will engage in supervised exercise session at the outpatient center
- All education materials also available on a Mayo Clinic website

- Following each session, participants will engage in a virtual fitness class including Zumba, line dancing, swimming, jogging or rock-climbing