

## Considerations for Aerobic Modes and Limiting Exercise Options when Prescribing Exercise

### Aerobic Modes

**Treadmill:** Good for impact loading and moderate to vigorous workouts in anyone unless they have ankle, knee, hip, or low back problems.

**Stationary bike:** Ideal for most people who have any balance problems and anyone who wants a moderate workout (may also increase the speed and get a vigorous workout in spin classes). Good for weight management programs especially with an elliptical.

**Elliptical:** Good for most patients who want a moderate to vigorous workout. May have to limit in patients with shoulder problems or hip DJD. Octane Ellipticals are better for people with shoulder problems and people who want a more vigorous workout from an elliptical.

**Precor AMT 100i:** Adaptive Motion Trainer; ideal for runners and patients already in moderate fitness that want to do vigorous aerobic training.

**Stairmaster stepmill:** Ideal for runners, hikers, and any patient with reasonable knees and hips who wants to get a vigorous workout.

**Stairclimber:** Good for patients that want a moderate to vigorous workout but can be difficult to do for more than 20 minutes.

**Swimming:** Only good for patients that are already good swimmers or patients with low back pain that is improved by swimming. Not good for weight management.

**Water aerobics:** Good for moderate intensity workouts and for patients that have moderately severe OA of the knee, hip, or low back

**Walking:** Good for most people for moderate intensity exercise, unless quite obese.

### Conditions

**Wrist sprain:** Avoid heavy weight lifting (biceps curls), pull-ups and other forces that lead to wrist distraction. Avoid end-range dorsiflexion in push ups. Avoid heavy weeding and pruning and paining. Aerobic: avoid rowing, elliptical machines with moving arms, and cross-country skiing.

**Tennis elbow:** Avoid excessive resistance and repetitive wrist extensions with significant loads. Avoid lat pulls. Aerobic: avoid rowing, cross-country skiing, use caution with kickboxing. Do not use arms with the elliptical.

**AC sprains and rotator cuff tendonitis:** Weight Training: avoid abduction and flexion above 90 degrees, avoid overhead press, pull ups, and lat pull downs. Aerobic: avoid cross country ski machines, rowing machines, Tae Bo classes, and swimming. Do not use arms with the elliptical.

**Cervical sprain, MVA, etc.:** Weight lifting: avoid quick rapid motions such as military press, avoid heavy squats with neck loaded, avoid lat pull downs to the posterior neck, avoid abdominal crunches with hands on the head pulling the neck into flexion. Aerobic: avoid running, step aerobics, blading, downhill skiing, snowboarding, and Tae Bo. Caution with bicycling on a road bike; a mountain or comfort bike with upright bars is better.

**Cervical disc:** All of the above precautions and in addition, avoid lat pull downs, overhead press and posterior triceps elbow extensions completely.

**Lumbosacral sprain, disc:** Weight lifting: Avoid lumbar extensions, military press, heavy squats, rapid knee extensions. Avoid toe touches (with lumbar flexion). Avoid diving, snowboarding, downhill skiing, blading, Tae Bo, and soccer. If skiing, do very easy slopes and avoid icy conditions.

**Hip DJD:** Weights: avoid high resistance and deep squats, avoid walking lunges. Aerobic: Minimize or avoid running. Avoid cross country ski machine. Ski easier trails. Avoid fast swimming, blading, and soccer. Stationary bike should be well tolerated.

**Patellofemoral and IT band syndrome:** Similar precautions for severe DJD of the knee. Weights: avoid deep squats, limit depth of lunges. Aerobic: caution with running, step aerobics, steep or fast downhill hiking, snowboarding, bicycling and Stairmaster. Stationary biking may be tolerated. Water aerobics should be well tolerated.

**Patella and quad tendonitis:** Bicycling and water aerobics may be well tolerated. Avoid volleyball, basketball, and all jumping.

**Meniscus tear:** Bicycling and water aerobics should be well tolerated. Avoid basketball, volleyball, skiing, and snowboarding.

**Ankle sprains:** Avoid high impact aerobic activities initially; avoid basketball, kick boxing and Tae Bo classes and other jumping activities.