

## LOW TEMPERATURE SAUNAS

### GOAL

Reduce over time the total amount of stored chemicals and toxins in the fat storage tissues of the body.

### RATIONALE

Fat-soluble chemicals and toxins can be concentrated in the fat storage tissues of the body (primarily adipose tissue). To mobilize and eliminate these unwanted chemicals and toxins low temperature saunas can be very useful. Evidence suggests that lipolysis (mobilization of stored fat) is maximized and oils (as opposed to water) accumulate on skin when low temperature saunas are utilized instead of high temperature saunas.

### PROTOCOL

When using a sauna to mobilize and eliminate stored chemical residues several considerations are critical.

1. The temperature setting of the sauna should be lower (less than 120°F {48.8°C} preferably and definitely lower than 130°F {54.4°C})
2. The duration of time in the sauna should be longer (10 - 60 minutes repeated 1-3 times per day) if temperature is below 120°F {48.8°C}.
3. The frequency of sauna use should be high (preferably 5 times per week).
4. After the sauna some form of natural oil or glycerine soap must be used to prevent the mobilized fats from being reabsorbed through the skin (use of a loofa or similar scrub brush is recommended).
5. Ensure the shower or part of the shower is with the water setting turned to as cold as possible (based upon your geographical setting and season this will vary but colder is better).
6. Repeat sauna followed by shower as desired up to 3 cycles of sauna and shower per day.
7. As a preventative measure once to twice weekly is adequate. If utilizing low temperature saunas to assist with the detoxification process of a chronically ill individual, 3-months of frequent saunas (5 times per week) followed by 3 months of 3 saunas per week is advised.
8. Drink adequate water before and after low temperature sauna treatments and replenish with electrolytes (these are depleted by a sauna).

*Note: Pulse rate might be the best indicator of the correct sauna temperature for your patient. A higher pulse during exercise indicates passage out of a fat mobilizing biochemistry into a dependence of other sources of energy. It is probably the same with respect to saunas. To best mobilize fat-soluble toxins we want to keep our physiology in a condition where it will maximize fat mobilization. A heart rate above (see below "Target Heart Rate") means we are moving out of the physiology where fat is mobilized preferentially, so adjust temperature accordingly to keep your pulse rate at or below*

*Note: For individuals who are not physically fit, or very unhealthy, beginning sauna therapy at very low temperatures (even below 110°F {43.3°C}) is preferable. For beginning treatment, sit as far away from the heat-generating component of the sauna as possible. The temperature will be lower in this area of the sauna.*

*Note: A high temperature sauna does not work equivalently for mobilization of stored chemicals and toxins. A high temperature sauna primarily eliminates water and is largely ineffective for mobilizing stored chemicals and toxins. So, shorter times at higher temperatures will not be very effective.*

**WARNING:**

Saunas are contraindicated in the first trimester of pregnancy, in young children, in adults with heart disease, in individuals with seizure disorders, immediately after intense exercise, immediately after consuming alcohol, or immediately after drug use (such as amphetamines or cocaine).

Do not begin saunas in a chemically sensitive individual without first reducing hepatic reuptake of toxins from bowel.

Do not begin sauna therapy in people with poor adrenal function without monitoring electrolytes.

**TARGET HEART RATE (BEATS PER MINUTE):**

Age 20 = 120 – 132

Age 30 = 114 – 125

Age 40 = 108 – 117

Age 50 = 102 – 111

Age 60 = 96 – 105

Age 70 = 90 - 97