

OBESITY AND BREATHING PROBLEMS

OBESITY IS A GROWING EPIDEMIC WORLD WIDE AND IS ONLY SET TO INCREASE OVER TIME.

THE EFFECTS OF OBESITY ON THE RESPIRATORY SYSTEM ARE GREATLY UNDER APPRECIATED. OBESITY PLAYS A KEY ROLE IN THE DEVELOPMENT OF OBSTRUCTIVE SLEEP APNEA AND HYPOVENTILATION SYNDROME. INDIVIDUALS WHO SUFFER FROM ASTHMA HAVE A MORE DIFFICULT TIME CONTROLLING THEIR SYMPTOMS WHEN THEY HAVE A WEIGHT ISSUE. OBESITY HAS A CORRELATION WITH SYMPTOMS FOR ANYONE SUFFERING COPD AS WELL.

OBESITY IS DEFINED AS A BODY MASS INDEX (BMI) GREATER THAN 30 KG/METER SQUARED. OVER 1.6 BILLION ADULTS ARE OVERWEIGHT, OF WHICH 400 MILLION ARE OBESE. OBESITY CAUSES BREATHLESSNESS ON EXERTION AND THE NEGATIVE EFFECTS ON LUNG FUNCTION HAVE BEEN DEMONSTRATED IN NUMEROUS STUDIES.

OBESITY IS ASSOCIATED WITH A DECREASE IN LUNG VOLUMES AND REFLECT A RESTRICTIVE VENTILATORY PATTERN. RESPIRATORY MUSCLE FUNCTION HAS BEEN SHOWN TO DETERIORATE INCREASING SHORTNESS OF BREATH AND OXYGEN DEMAND. WEIGHT LOSS CAN REVERSE THIS REDUCTION IN LUNG FUNCTION AND THE SHORTNESS OF BREATH BECOMES MUCH LESS DEBILITATING.

OBSTRUCTIVE SLEEP APNEA IS DUE TO COLLAPSIBLE UPPER AIRWAYS FROM BEING OBESE. THE INCIDENCE AND PREVALENCE OF OBSTRUCTIVE SLEEP APNEA (OSA) HAS NOW REACHED NEW HEIGHTS AND IS PREDICTED TO RISE EVEN FURTHER. NECK CIRCUMFERENCE USED TO BE THE UNIVERSAL INDICATOR IN DETERMINING IF A SLEEP STUDY SHOULD BE CONSIDERED. NOW IT IS ABDOMINAL CIRCUMFERENCE THAT IS THE BETTER INDICATOR. WHEN SLEEP IS DISRUPTED BECAUSE OF SLEEP APNEA, A PERSON TENDS TO GAIN WEIGHT BECAUSE OF EXHAUSTION. LOWER ENERGY LEVELS RESULT IN A DECLINE IN PHYSICAL ACTIVITY WHICH THEN PROMOTES FURTHER WEIGHT GAIN. POOR SLEEP ALSO HAS A DIRECT EFFECT ON FOOD INTAKE AS WELL. INDIVIDUALS TEND TO EAT MORE CARBS AND CALORIE DENSE FOODS WHEN THEY ARE EXHAUSTED IN AN ATTEMPT TO INCREASE THEIR ENERGY LEVEL.

ASTHMA SEEMS TO BE COMMONER IN THE OVERWEIGHT POPULATION REGARDLESS OF GENDER. WEIGHT GAIN DECREASES LUNG COMPLIANCE BY REDUCING AIRWAY SIZE AND TONE. THIS INCREASES AIRFLOW RESISTANCE AND AIR TRAPPING LEADING TO SHORTNESS OF BREATH

AND WHEEZING. THE OBESE POPULATION HAS A LONGER DURATION OF SYMPTOMS AND USES MORE MEDICATION FOR THOSE SYMPTOMS.

THE COMBINED EFFECTS OF OBESITY AND COPD (CHRONIC OBSTRUCTIVE PULMONARY DISEASE), RESULT IN DETERIORATION OF LUNG FUNCTION INCREASING AIRFLOW OBSTRUCTION AND HYPOXIA.

MANY PATIENTS ARE UNAWARE OF THE IMPACT THEIR WEIGHT HAS ON BREATHING DIFFICULTIES, SLEEPING PATTERNS, AND CONTROL OF ASTHMA/COPD SYMPTOMS. FOR OVERWEIGHT TO OBESE PATIENTS AN IMPROVED DIET AND EXERCISE REGIMEN IS ENCOURAGED TO REDUCE THE MEDICAL COMPLICATIONS THAT CAN ARISE FROM EXCESS BODY WEIGHT. WEIGHT LOSS WOULD LEAD TO LESS SHORTNESS OF BREATH, IMPROVED ASTHMA OR COPD SYMPTOMS AND IMPROVE THE QUALITY OF LIFE. WEIGHT LOSS AND REGULAR EXERCISE CAN BE AS EFFECTIVE OR MORE EFFECTIVE THAN USING PRESCRIPTION MEDICATIONS LIKE INHALERS TO CONTROL SYMPTOMS.