

# MOTOR DISORDERS IN THE UPPER EXTREMITY AT SECONDARY LYMPHEDEMA IN WOMEN AFTER MASTECTOMY

**OLHA BAS**

**LVIV STATE UNIVERSITY OF PHYSICAL  
CULTURE NAMED AFTER IVAN BOBERSKYJ**

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## Innovative Rehabilitation Education- Introduction of new master degree programs in Ukraine (REHAB)



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## INTRODUCTION

- **LYMPHOSTASIS OR SECONDARY LYMPHEDEMA AS A CONSEQUENCE OF THE DISEASE IS A PATHOLOGICAL SYMPTOM COMPLEX CAUSED BY THE GRADUAL DEVELOPMENT AS THE RESULT OF VARIOUS CAUSES OF *LYMPHATIC OUTFLOW*, ACCOMPANIED BY PERSISTENT SWELLING AND ENLARGEMENT OF THE LIMB OR ANY PART OF THE BODY IN SIZE WITH SUBSEQUENT FIBROSIS.**
  - ACCORDING TO THE WHO (2018) MORE THAN **300 MILLION PEOPLE** WORLDWIDE SUFFER FROM LYMPHEDEMA OF DIFFERENT ETIOLOGIES, **10% OF THE WORLD'S POPULATION** SUFFER FROM LIMB EDEMA, AND THE NUMBER OF NEWLY DIAGNOSED PATIENTS IS INCREASING EVERY YEAR



*SUCH PATIENTS FORM THE CATEGORY OF SEVERE PATIENTS WHO HAVE TO BE TREATED LONG AND OFTEN UNSUCCESSFULLY.*

**THE MOST COMMON MANIFESTATIONS OF SECONDARY LYMPHEDEMA ARE FOUND AMONG WOMEN OF WORKING AGE AT DIFFERENT TIMES AFTER RADICAL TREATMENT OF BREAST CANCER: FROM THE EARLY POSTOPERATIVE PERIOD TO SEVERAL YEARS AFTER IT.**

**SWELLING, WHICH IS NOT TREATED IN ITS INITIAL STAGE, CAN GO INTO THE CHRONIC STAGE AND CAUSE LIMITATION OF MOBILITY AND FUNCTIONALITY, DEFORMITY OF THE LIMB IN SEVERE CASES, MALIGNANT TUMORS IN THE DAMAGED AREA (LYMPHANGIOSARCOMA).**



- **THE AIM OF OUR STUDY IS TO DETERMINE THE DEGREE OF UPPER LIMB MOBILITY IN WOMEN WITH SECONDARY LYMPHEDEMA AFTER MASTECTOMY.**

- **MATERIAL AND METHODS.** THE STUDY INVOLVED *20 WOMEN OF SECOND MATURE AGE*, WITH SECONDARY LYMPHEDEMA AFTER MASTECTOMY, WHICH AROSE AT VARIOUS PERIODS AFTER SURGERY.
- AS THE METHODOLOGY, WE HAVE CHOSEN A SIMPLE AND ACCESSIBLE RESEARCH METHOD: **GONIOMETRY** OF THE UPPER EXTREMITY JOINTS, WHICH ALLOWED US TO OBJECTIVELY EVALUATE MOBILITY IN THE UPPER EXTREMITY JOINTS, AND TO SHOW CLEARLY A WOMEN'S PROBLEMS AND DISORDERS. THE EXAMINATION OF PATIENTS WAS PERFORMED ONCE TO DETERMINE THE FUNCTIONAL DISORDERS AND COMPLICATIONS CAUSED BY SECONDARY LYMPHEDEMA AFTER MASTECTOMY.

## • RESULTS.

**REHAB**

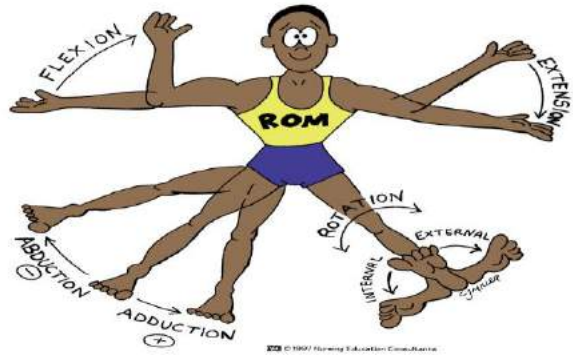


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- ANALYZING THE COMPLICATIONS AFTER THE MAIN TREATMENT AND THE FREQUENCY OF THEIR DETECTION ACCORDING TO THE RESULTS OF THE QUESTIONING OF WOMEN, WE FOUND THAT 3 PATIENTS HAD LYMPHEDEMA IMMEDIATELY AFTER SURGERY ON THE BREAST, AS AN EARLY COMPLICATION AND IT WAS LASTING FOR A LONG TIME. IN 3 PATIENTS, IT OCCURRED AFTER UNDERGOING RADIATION THERAPY, IN 2 - AFTER PHYSICAL LIMB STRAIN, AND IN 2 SWELLING OCCURRED ON ITS OWN (WITHOUT SPECIFYING THE CAUSE) AFTER 5-8 YEARS AFTER SURGERY.

RANGE OF MOTION



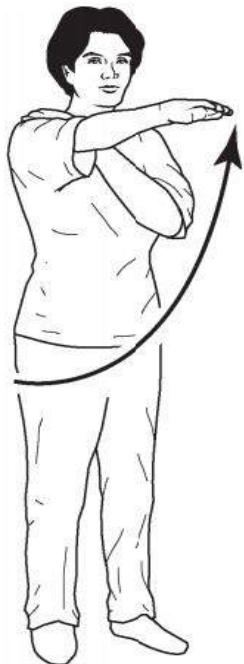
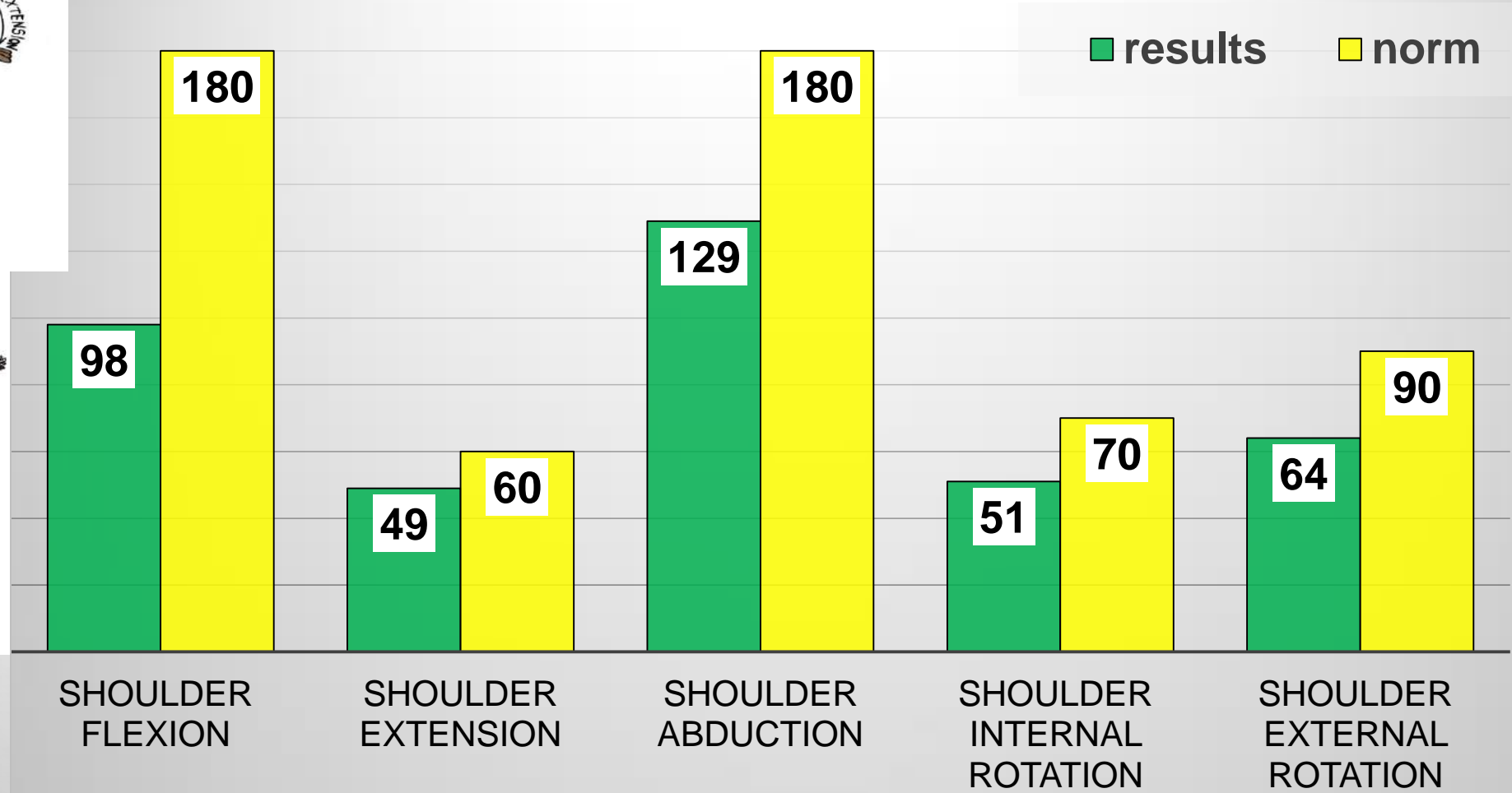
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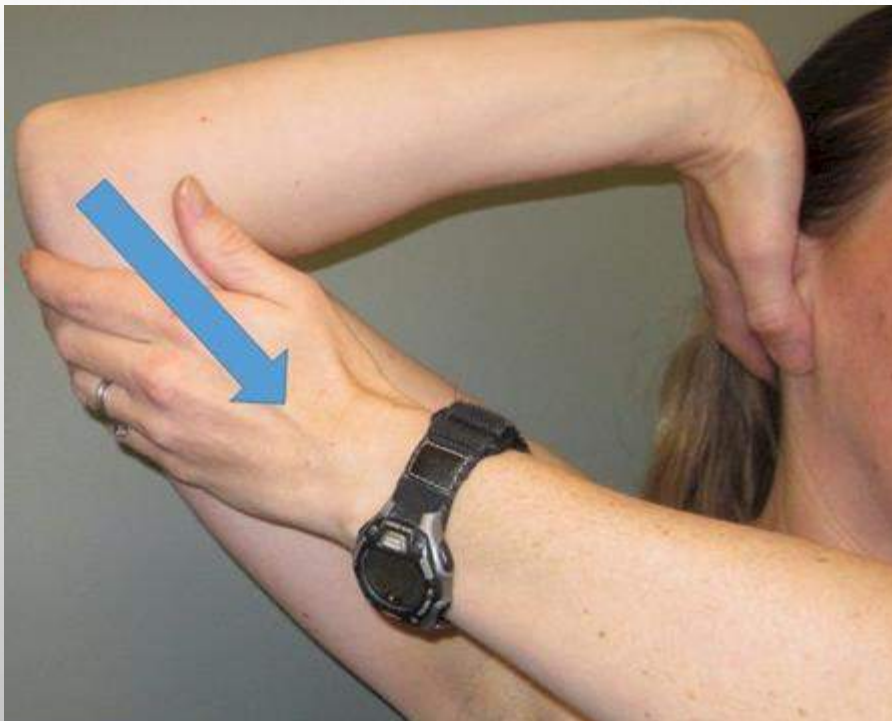


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■ results ■ norm





- WHEN MEASURING THE **FLEXION AMPLITUDE AT THE ELBOW**, THE AVERAGE WAS 110 °, THE FLEXION MOVEMENT WAS WITHIN THE NORMAL RANGE OF ALMOST ALL WOMEN.
- MOVEMENTS OF **PRONATION AND SUPINATION OF THE FOREARM** WERE WITHIN THE LIMITS OF 70 °. EXAMINING THE MOVEMENTS IN THE WRIST JOINT, NO RESTRICTIONS WERE FOUND, WHICH IS EXPLAINED BY THE LOCALIZATION OF LYMPHATIC EDEMA MORE IN THE SHOULDER AND FOREARM AREA.





## CONCLUSION



ON THE BASIS OF THE CONDUCTED RESEARCH, IT WAS ESTABLISHED THAT PATIENTS HAVE MOBILITY LIMITATIONS MAINLY IN THE SHOULDER JOINT ON THE AFFECTED AREA. SUCH RESULTS CAN BE EXPLAINED BY THE OFTEN GENTLE AND FORCED POSITION AND THE GREAT WEIGHT OF THE LIMB WITH LYMPHEDEMA, WHICH PROVOKES THE DEVELOPMENT OF A STABLE CONTRACTURE OF THE JOINT, AS A SECONDARY INJURY. IN ORDER TO ADEQUATELY IDENTIFY IMPAIRED FUNCTIONS AND, FURTHER, TO ESTABLISH EFFECTIVE PROGRAMS OF PHYSICAL THERAPY, WE RECOMMEND CONDUCTING A SERIES OF FUNCTIONAL TESTS TO EVALUATE THE UPPER LIMB AND THE SHOULDER OF THE INDIVIDUAL.