Poster 339
Relationship Between Participants' Pre-Treatment Individual Characteristics and Change in Perceived Work Ability After a Multidisciplinary Rehabilitation Program.

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Disclosures: M. Saltychev, No Disclosures.
Objective: To study the effects of rehabilitants' pre-treatment characteristics on change in their perceived work ability after multidisciplinary musculoskeletal rehabilitation.
Design: Prospective cohort study. Data from national health registers and responses to repeat survey were gathered 2.1 (SD 1.17) years before rehabilitation. Mean scores of perceived work ability were calculated in the short-term (mean 1.5, up to 4.0 years) and long-term (mean 5.8, up to 8.9 years) follow-up after the rehabilitation course.
Setting: Rehabilitation program funded by the national public insurance institution and implemented in private and third-sector rehabilitation facilities.
Participants: 860 working-age rehabilitants with non-specific musculoskeletal problems.
Interventions: In-patient multidisciplinary biopsychosocial rehabilitation program.
Main Outcome Measures: Perceived work ability assessment was based on three repeat responses to a standard single-item question concerning "current work ability compared with the lifetime best", with a possible score of 0 ("completely unable to work") to 10 ("work ability at its best").
Results: Mean score of perceived work ability was 7.13 (SD 1.84, range 0-10) before the intervention and decrease in both the short- and the long-term follow-up by 0.82 (CI −0.98–0.67) and 1.26 (CI −1.45–1.07), respectively. Greater anxiety and psychological distress as well as perceived sub-optimal general health were associated with milder deterioration of perceived work ability in the entire follow-up.
Conclusions: Participants who experienced poor general and mental health before rehabilitation had better response to rehabilitation measured by deterioration of their perceived work ability. This finding might be in use to improve the participants' selection process and to adjust the structure of the program.

Poster 340
Cycle Duration in Eating is Longer for Stage II Oropharyngeal Transport Cycles Than for Chewing Cycles.

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Disclosures: M. Yoda, No Disclosures.
Objective: While chewing solid food, part of the bolus is propelled into the oropharynx by stage II oral food transport (St2Tr) prior to swallowing. Triturated food is "squeezed back" by the tongue to the oropharynx and valleculae where it is stored prior to swallowing. Though St2Tr is common, its mechanism is poorly understood. We hypothesize that the duration of St2Tr cycles is longer than ordinary chewing cycles due to the additional time required for the squeeze back action of the tongue.
Design: Prospective physiological study.
Setting: Hospital radiology suite.
Participants: 13 healthy adult volunteers.
Interventions: Videofluoroscopy was performed in lateral projection while subjects ate 6- pieces of banana, cookie and tofu with barium. Jaw motion was measured with motion analysis software. Each jaw motion cycle (except in swallowing) was classified as St2Tr or chewing. Each cycle was then divided into closing, occlusal and opening phases according to the direction of jaw motion.
Main Outcome Measures: Duration of each cycle and each phase of jaw motion.
Results: Cycle duration was significantly longer for St2Tr (0.92 ± 0.33 s; mean ± SD) than chewing cycles (0.68 ± 0.18 s; $P<.01$) for each food. The duration of occlusal and opening phases were significantly longer during St2Tr (0.30 ± 0.2 and 0.34 ± 0.18 s, respectively) than chewing cycles (0.15 ± 0.06 and 0.24 ± 0.10 s; $P<.01$). The duration of closing did not differ significantly (0.28 ± 0.09 and 0.29 ± 0.09, $P=.96$).
Conclusions: Cycle duration was longer for St2Tr than chewing cycles; this resulted from lengthened occlusal and opening phases. Food propulsion during St2TR occurs primarily during the occlusal and opening phases of jaw motion, so the time for required squeeze-back action of the tongue can explain the longer duration of St2Tr cycles. These findings support the critical linkage of tongue and jaw motion during mastication.

Poster 341
A Rare Complication of Percutaneous Endoscopic Gastrostomy (PEG) Tube Removal: A Case Report and Review of Literature.

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Disclosures: N. Baxi, No Disclosures.
Case Description: Patient: A 26-year-old woman with tetraplegia secondary to neuromyelitis optica (NMO). After developing NMO, the patient was treated with intravenous immunoglobulin, high-dose corticosteroids, and plasmapheresis. Her course was further complicated by laryngeal angioedema and resultant dysphagia requiring percutaneous endoscopic gastrostomy (PEG) placement. After admission to the inpatient acute spinal cord injury rehabilitation unit, the patient's neurological status and dysphagia rapidly improved. 14 days after its insertion, the PEG was removed at bedside via a traction technique with no immediate complications and patient was able to tolerate a meal following removal.
Program Description: Mount Sinai Medical Center, New York, NY.
Setting: Inpatient acute spinal cord injury rehabilitation center.
Results or Clinical Course: 24 hours following removal, patient developed severe abdominal pain and distension 1 hour after a meal. Computed tomography of the abdomen showed free air in the region of the stomach and duodenum. Patient was taken emergently to the operating room for surgical closure of a perforated anterior gastric wall at the site of PEG placement.
Discussion: This is the first reported case, to our knowledge, of an adult developing peritonitis from gastric perforation after PEG tube removal.