

Differences in Weight Loss and Recovery after Cleft Lip and Palate Repair

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INTRODUCTION: In the immediate post-operative period after cleft lip (CL) or cleft palate (CP) repair, normal feeding may be interrupted secondary to pain or dietary restrictions. Poor nutritional intake puts patients at risk for dehydration, delayed healing, or other complications. The degree of any associated weight loss and time to recover is not well described. Understanding prevalence, degree, and duration of this weight loss after CL and CP repair provides a yardstick for "normal" versus "abnormal" recovery.

METHODS: Single institution retrospective study of weight loss/gain after primary CL and CP repairs for patients born between January, 2011 and December, 2013

RESULTS: 130 primary CL repairs (isolated CL=59; CL/P=71) and 140 primary CP repairs (isolated CP=72; CL/P=69) were identified. First post-operative visits averaged 10.01 days (SD 3.78) and 10.66 days (SD 3.68) after surgery for CL and CP, respectively. By this time only 21.54% of CL repair patients had not returned to their immediate pre-operative weights compared with 57.14% of CP repairs. After CL repair, 23.6% of isolated CL and 20.0% of CL/P patients had prolonged weight recovery. After CP repair, 45.0% of isolated CP and 55.0% of CL/P were affected. Maximum recorded weight loss after CL repair was 0.44 kg (mean=0.15kg; SD 0.11); after CP repair 0.85 kg (mean=0.31 kg; SD 0.21). The maximum %body weight loss was 6.11% after CL repair (mean=1.76%; SD 0.7) and 9.2% after CP repair (mean=3.1%; SD 2.13). For patients not returned to pre-operative weight by first visit, CP repair took significantly longer on average to reach this goal (CL=16.65days; CP=34.29days). Patients undergoing CP repair with slowed post-operative weight recovery had a 22.5% rate of unintentional fistula/partial dehiscence compared to 10.0% of those recovered by first visit. Cleft type was associated with risk of delayed weight recovery and unintentional fistula after primary CP repair;

CONCLUSIONS: Primary CP repair involves higher risk and degree of post-operative weight loss and overall slower rates of weight recovery as compared with primary CL repair. Almost 60% of CP repairs will experience post-operative weight loss averaging 0.31kg and 3.1% of body weight. Post-operative weight loss is associated with increased risk for complications with palatal healing. CP repair patients should be monitored closely for weight recovery and considered for calorie supplementation to support improved post-operative outcomes.