

Dietetic support for young people with eating disorders

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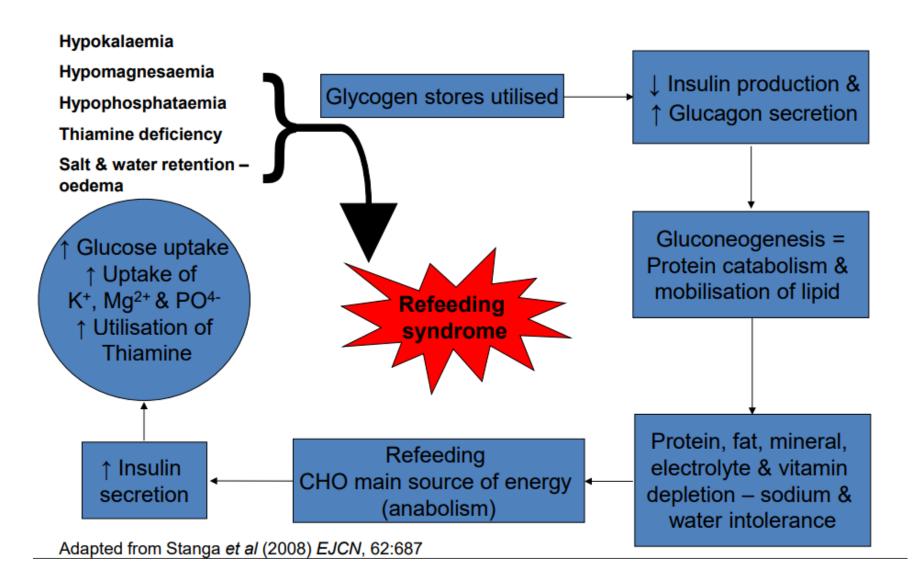
What we will cover

- Refeeding and underfeeding
- NGT feeding
- NGT feeding under restraint

Refeeding syndrome

The change in the body's metabolism from the starved state (catabolic) to the fed state can cause:

- Sudden release of insulin
- Shift in electrolytes
 - Low blood levels of Phosphate, Magnesium, Potassium and Calcium
- Muscle weakness
- Neurological changes: Confusion / Seizures / Fits
- Cardiac abnormalities: abnormal heart rate, rhythm and ultimately cardiac arrest
- Deranged fluid balance e.g. puffy ankles
- Associated with significant morbidity and mortality
- Can be seen regardless of the route of nutrition: oral diet, NGT or TPN



Refeeding in hospital

Refeeding syndrome is RARE

The majority of patients will be managed safely in the community.

If RED risks identified from MEED – discuss with Paediatrics (admission not always needed though)

Good working relationships with local Paediatrics is key – if not in place already, try to establish:

- Identify a nominated Paediatrician can lead to less admissions!
- Local admission pathway
- Emergency admission meal plans
- Skilling up paediatric nurses re meal support (not just RMNs) empower parents to do meal support
- CYP-ED team in-reach

Refeeding

Restoring regular eating and weight gain is the most effective treatment for the cardiac abnormalities seen in underweight patients.

HIGH RISK PATIENTS WHO MAY NEED MEDICAL STABILISATION:

Full risk assessment – MEED

- Rapid weight loss >1kg/week
 - Acute onset = no physical adaptation
- Severe malnutrition <70%mBMI
- Abnormal electrolytes
- Low white blood cell count <3.5 x 109/l
 - But if raised CRP (infection) this is not reliable

Refeeding – monitoring

Refeeding bloods:

- U&E's, LFTs, Ca, Mg, PO₄
- Day 1, 3, and 7 unless indication to do more frequently

Physical health observations:

- BP, pulse, temperature
- Weight (monitor for fluid retention)
- ECG repeat if abnormal

Nutritional supplementation

- Correct any abnormal biochemistry
- Prophylactic supplementation evidence unclear
 - Can consider Thiamine 200mg daily for first 14 days

If refeeding syndrome is suspected, do not continue with calorie increase until stabilised – DO NOT REDUCE INTAKE

Refeeding v's underfeeding

Avoid underfeeding' syndrome

- when weight loss while inpatient due to inadequate caloric input to support rapid weight gain and medical stabilization
- Underfeeding leads to further medical instability
- It often occurs because the clinician is afraid of complications associated with the refeeding syndrome.
- Failure to adequately feed the patient can be fatal.



Refeeding meal plans

Research suggests that for those at HIGH risk and require a Paediatric admission:

- It is ok to start at 1,400kcal/day, increasing by 200kcal/day if biochemistry stable (U&E's, LFT's, Ca, Mg, PO₄).
 - Can be 'portioned plans' 1/2, 3/4 to full portions etc...
 - Anticipatory anxiety will always be high
- Global trend is towards higher starting calories
- Ensure that 'underfeeding' does not happen

Majority of patients will not require a Paediatric admission and therefore it is safe to start on 1,500kcal/day or 2,000kcal/day meal plan

Ensure it is never less than current intake

Refeeding meal plans

Top tips

- 2 copies one for patient (no calories) one for nursing team
- Do NOT talk about calories to the patient
- Do NOT comment on the food 'that looks nice' 'you must have been hungry'
- 'Food is medicine'
- Accurate food record charts are really important
- Minimal negotiation 3 pre-illness dislikes (not whole food groups)
- Distraction techniques helpful
- Bathroom before meal/snack
- Clear guidelines on time to eat
 - 30mins main /10mins snack

Day 1	Meal ideas and Nutritional Supplements
Breakfast	1 cup cereal (40g) + 1 cup milk (200mls)
	or
200kcals	Slice of toast with spread and topping
	or
	135mls Nutritional Supplement (1.5kcal/ml)
Mid	Biscuits x 2 or cereal bar and glass of milk (200mls)
Morning	or
200kcals	Large pot of full fat yogurt
	or
	135mls Nutritional Supplement (1.5kcal/ml)
Lunch	½ sandwich with filling (with spread)
200kcals	Or
	½ jacket potato and filling
	or
	½ tin of soup with 1 x bread (with spread)
	or
	135mls Nutritional Supplement (1.5kcal/ml)
Mid	Biscuits x 2 or cereal bar and a glass milk (200mls)
afternoon	or
200kcal	Larger pot of full fat yogurt
	or
	135mls Nutritional Supplement (1.5kcal/ml)
Evening	$\mbox{\%}$ carbohydrate measure, $\mbox{\%}$ protein measure and small amount
meal	of vegetables
200kcals	or
	135mls Nutritional Supplement (1.5kcal/ml)
Supper	1 cup cereal (40g)
200kcals	or
	1 cup milk (200mls)
	or
	slice of toast with spread and topping
	or
	135mls Nutritional Supplement (1.5kcal/ml)
Total	1200 Kcal

NGT feeding

Be cautions in starting, needs long discussion with the patient – especially those with ASD and emotional dysregulation

Can help promote weight gain/physical heath restoration and reverse starved state to transition to oral diet

Understand MHA 'least restrictive practice' considerations

Hindley, K., Fenton, C. & McIntosh, J. A systematic review of enteral feeding by nasogastric tube in young people with eating disorders. *J Eat Disord* **9**, 90 (2021). https://doi.org/10.1186/s40337-021-00445-1



NGT feeding under physical restraint

Don't back people into a corner

BUT can save someone's life – identify your exit strategy

Guidance available:

- Dietetic practice
- Fuller, S. J., et al. "The development of consensus-based guidelines for dietetic practice in nasogastric tube feeding under restraint for patients with anorexia nervosa using a modified Delphi process." *Journal of Human Nutrition and Dietetics* 33.3 (2020): 287-294.
- Legal & ethical
- Fuller, S., Chapman, S., Cave, E., Druce-Perkins, J., Daniels, P., & Tan, J. (2022). Nasogastric tube feeding under physical restraint on paediatric wards: Ethical, legal and practical considerations regarding this lifesaving intervention. BJPsych Bulletin, 1-6. doi:10.1192/bjb.2022.11
- Nursing practice
- Out soon!



NGT feeding under restraint

- Requires detention under the MHA
- Only staff who are trained in restraint practices can facilitate this
- Therefore the principle of least restrictive practice applies and standard paediatric NGT feeding protocols need to be adapted
- Top tips:
 - 2 bolus feeds a day
 - Push syringe bolus
 - Start at 500ml per bolus and is safe to go up to 1,000ml/bolus
 - Higher Fr NGT will aid the passing of enteral feed
 - Use 'compact' sip feeds, and products as calogen or 5cal to minimise volume of feed
 - Can thin this mix slightly with water
 - 1,000ml can safely be delivered in ~10mins
 - Always have an exit strategy