CCHCS Hunger Strike, Fasting, & Refeeding Care Guide

SUMMARY | **DECISION SUPPORT** | **PATIENT EDUCATION/SELF MANAGEMENT**

Italicized words indicate language taken directly from the Mass Organized Hunger Strike Policy, IMSP&P, Volume 4, Chapter 22.4

Goals

- Provide appropriate medical care to patients participating in a hunger strike
- Identify patients at risk during fasting
- Identify patients at risk for refeeding syndrome
- Safely refeed patients after fasting

Alerts

Body Mass Index (BMI) under 18.5
Food refusal ≥ 28 days
Medical or mental health comorbidity
Fluid refusal

Definitions

Individual Hunger Strike: The conscious decision to refuse food or fluids for political, mental health or other grievance related reasons.
Individual Hunger Strike Participant: An inmate who is identified by California Department of Corrections and Rehabilitation (CDCR) custody staff as a participant in an individual hunger strike.
Mass Organized Hunger Strike: An organized hunger strike including multiple inmates with a common goal and set of demands.
Mass Organized Hunger Strike Participant: An inmate who is identified by CDCR custody staff as a participant in a mass organized hunger strike.
Refeeding Syndrome (RFS): Refeeding syndrome describes a potentially fatal medical condition that may affect fasting, malnourished and/or ill patients in response to feeding. (See page 7)

Diagnostic Criteria/Evaluation of Fasting & Refeeding Syndrome

FASTING	REFEEDING SYNDROME		
	Negligible Risk	Modest Risk	High Risk
Patients may be at high risk for complications from fasting with any of the following: ▪ Pregnancy ▪ Elderly (≥ 65 years of age) ▪ Baseline BMI less than 18.5 kg/m^2 ▪ Taking medications that may pose a risk during prolonged fasting (e.g., insulin, antacids, diuretics). ▪ Chronic medical conditions such as: diabetes, hypertension, cancer, malabsorption, end stage liver disease, renal disease, inflammatory bowel disease, congestive heart failure, ischemic heart disease, etc.	Less than 15 days of hunger strike participation without identified medical risks of fasting.	▪ Patients requiring monitoring due to medical risks. ▪ Patients with: ♦ A BMI > 16 but ≤ 18.5 kg/m^2 during food refusal. ♦ Loss of > 10% but ≤ 15% of body weight during food refusal. ♦ Food refusal of 15-28 days.	▪ BMI ≤ 16 kg/m^2 ▪ Weight loss > 15% of body weight since starting food refusal. ▪ Low potassium, magnesium, or phosphate levels before resumption of feeding. ▪ Food refusal for more than 28 days. ▪ Medical or mental health conditions creating high risk of complications from fasting.

Treatment Summary

1. *Designated licensed health care staff shall observe all participants daily and determine any need for immediate medical attention. (Sec. III.C.5)*
2. Health information on starvation, refeeding, and patient care resources should be distributed to hunger strike participants within one week of notification by custody of a hunger strike participant.
3. *When custody notifies health care executives of mass hunger strike participants, staff shall adhere to the following timelines:*
   Within 72 hours:
   a. *Health care staff shall review the health record to determine if the participant is at a high-risk for complications of starvation and refeeding.*
      1) High-risk hunger strike participants may be scheduled for a primary care provider (PCP) visit, vital signs, and Body Mass Index (BMI) determinations.
      2) Refusals shall be documented in the health record.
      3) If participants are prescribed high-risk medications, a PCP may discontinue or adjust the medication dosage without a PCP visit.
      4) Participants shall be notified in writing regarding medication changes. (Sec. III.C.7.b)
   b. Individual hunger strike participants who are in the MHSDS or DDP shall undergo mental health evaluations.
4. *Within seven calendar days, the participant shall be scheduled for a face-to-face triage assessment by an Registered Nurse (RN) who shall provide education on the adverse effects and risks of fasting and the refeeding syndrome. (Sec. III.C.7.c)*
5. *The CME or designee may decide, based on a participant's health care condition, to either place the participant in an Outpatient Housing Unit or to immediately transfer to a licensed health care facility (for services that are not available at the institution). (Sec. III.D.1)*
6. *After 14 calendar days, and at least weekly thereafter, health care staff shall schedule all identified participants (even if not in a high-risk group) for a PCP visit which will include a BMI determination. (Sec. III.C.7.d)*
7. *After the initial 72-hour evaluation, participants in the MHSDS or DDP shall have a mental health evaluation scheduled every 14 calendar days or more frequently, as clinically indicated. (Sec. III.C.7.e)*
8. *After 21 calendar days of participation in a hunger strike, participants shall be provided with written information about advance directives and the CDCR 7465, Physicians Orders for Life Sustaining Treatment. (Sec.III.C.7.f)*
9. Refeeding: **Negligible Risk:** Participants can eat and drink freely and require no specific monitoring.
   Modest Risk: Most participants may be refed with a modified CDCR heart healthy diet for the first 48 hours by providing "1/2 CDCR diet."
   High Risk: Refeeding will usually occur in a licensed medical setting. Intake is increased from 10 kcal/kg/day to 30 kcal/kg/day over one week. Patients are monitored for fluid, electrolyte, and cardiac abnormalities. (See pages 4-5 for specific refeeding recommendations).

MANAGEMENT RECOMMENDATIONS DURING FASTING

Day	***Initiate the CCHCS Mass or Individual Hunger Strike Policy***
Within 1 day of notification of participation in mass or individual hunger strike	*Health care staff shall not prescribe meal replacements including milk, juice, or nutritional supplements to patients participating in a mass hunger strike unless medically necessary. (Sec. III.C.4)* (**For refeeding at any stage, see Refeeding Management page 4-5)** **NURSING** *Designated licensed health care staff shall observe all participants daily and determine any need for immediate medical attention. (Sec. III.C.5)* ♦ Observations should include: ▪ Visual check of inmates on the hunger strike ▪ Brief verbal contact ▪ Observation of any obvious health issues ▪ Documentation of findings in the health record ♦ Education should include: ▪ Encouraging 1.5 liters or more/day fluid intake ▪ Providing patient education hunger strike fact sheet at initial contact regarding fasting and refeeding facts, and medical care information ♦ *Within 24 hours, health care staff shall notify each participant that they are eligible for sick call evaluations during the hunger strike. (Sec. III.C.7.a)* ♦ Health care staff will notify the Primary Care (Clinic) RN of all participants with any change in condition that might indicate that the patient needs a housing change or higher level of care. Patients needing immediate health care will be transported to the TTA for evaluation. **PRIMARY CARE PROVIDER:** Evaluation as clinically indicated.
1-3 Days after notification of participation in mass or individual hunger strike	**NURSING:** Daily observation **PRIMARY CARE PROVIDER:** ♦ IDENTIFY HIGH RISK PATIENTS: Within 72 hours of notification of participation in mass or individual hunger strike, health care staff will review records to identify patients with conditions or medications placing them at risk for complications during fasting (see page 1). ♦ MEDICATION ADJUSTMENT: Within 72 hours of notification of hunger strike participation: Medications may be dose adjusted or discontinued for patients if their use increases the risk of complications during fasting. (Note: a PCP visit is not required to adjust/discontinue medications) ▪ Medications which may require adjustment or discontinuation due to potential risk to fasting individuals include insulin, oral hypoglycemic agents, antihypertensive agents, nonsteroidals (NSAIDs), antacids (may interfere with phosphate absorption), diuretics (discontinue if possible, especially in those refusing fluids.) ♦ *PCP VISIT: Based on clinical judgment, high-risk participants may be scheduled for a PCP visit, vital signs, and Body Mass Index (BMI) determinations. (Sec. III.C.7.b.1.a)* The PCP visit should include: ▪ Recording vital signs, weight, and BMI (see page 12) ▪ Consideration of baseline labs: CBC, CMP, magnesium, phosphate ▪ Counseling regarding the medical risks of starvation ▪ Counseling of the medical risks of refeeding after prolonged fasting ▪ Encouraging consumption of 1.5 liters or more of fluid each day ▪ Consider reissuing patient education fact sheet ♦ REFUSALS: Refusals of scheduled PCP visits shall be documented in the health record. **MENTAL HEALTH** *Within 72 hours of notification by custody that patients are mass* (or individual) *hunger strike participants:* Mass Hunger Strike: *Mental health staff shall review the health care Mass Hunger Strike Participant List for patients in the Mental Health Services Delivery System (MHSDS) and/or Developmental Disability Program (DDP) and shall conduct a mental health evaluation for those patients on the list. For the purposes of the hunger strike mental health evaluation, the clinician shall rule out mental health or cognitive issues that may impact decisional capacity. The clinician shall ensure the patients understand the implications and potential consequences of not eating and that the patients are not being coerced. (Sec. III.C.7.b.2)* Mass and Individual Hunger Strikes: *After the initial 72-hour evaluation, participants in the MHSDS or DDP shall have a mental health evaluation scheduled every 14 calendar days or more frequently, as clinically indicated. (Sec. III.C.7.e)*

SUMMARY	DECISION SUPPORT	PATIENT EDUCATION/SELF MANAGEMENT

MANAGEMENT RECOMMENDATIONS DURING FASTING

4-7 days of mass or individual hunger strike participation	**NURSING** *Within seven calendar days, the participant shall be scheduled for a face-to-face triage assessment by an RN who shall provide education on the adverse effects and risks of fasting and the refeeding syndrome. (Sec. III.C.7.c)* This assessment should include: ♦ Education (see patient education page PE-1) ▪ *The adverse effects and risks of fasting and the refeeding syndrome. (Sec. III.C.7.c)* ▪ The need to consume 1.5 liters or more of fluid each day. ▪ Providing the hunger strike patient education fact sheet regarding starvation and refeeding facts, and medical care information. ▪ Signs and symptoms of dehydration, potential for dizziness when moving quickly. ♦ Height and weight (noting presence of restraints), scale should be identifiably marked, whenever possible the same scale should be used at each weighing session (record scale used) ♦ Vital signs ♦ Additional focused system assessment to assess for signs of dehydration, altered mental status, and other physical abnormalities that would require referral to a higher level of care. *Nursing staff shall document the encounter or refusal in the health record. (Sec. III.C.7.c.2)* **PCP** *If participants are prescribed high-risk medications, a PCP may discontinue or adjust the medication dosage without a PCP visit. (Sec. III.C.7.b.1.c) Participants shall be notified in writing regarding medication changes. (Sec. III.C.7.b.1.d)*
7-14 days of mass or individual hunger strike participation	**MENTAL HEALTH** For individual hunger strike participants who are in the MHSDS or DDP, a mental health evaluation will be completed/ performed every two weeks or more frequently as clinically indicated. **NURSING** Daily nursing observation **PCP** PCP evaluation as clinically indicated
14-20 days of mass or individual hunger strike participation	**NURSING** Daily nursing observation **PCP** *After 14 calendar days, and at least weekly thereafter, health care staff shall schedule all identified participants (even if not in a high-risk group) for a PCP visit which will include a BMI determination (Sec. III.C.7.d)* and baseline labs as clinically indicated. *After 21 calendar days of participation in a hunger strike, participants shall be provided with written information about advance directives and the CDCR 7465. (Sec. III.C.7.f)* (See prolonged fasting patient education handout, page PE-2) Consider need for higher level of care (especially with > 15% weight loss or BMI of < 19 kg/m^2) Patients offered: ▪ Thiamine, 100 mg by mouth daily ▪ B complex, one by mouth daily ▪ Multivitamin, one by mouth daily
21 -34 days of mass or individual hunger strike participation	**NURSING** Daily nursing observation At 21-28 days of participation in a hunger strike: Consider referral for evaluation of need for higher level of care (especially with > 15% weight loss or BMI of < 19 kg/m^2) **PCP** At least weekly PCP visit If the participant accepts a PCP visit, the PCP should assess and document: ▪ Clinical assessment including hydration status and need for closer observation or a higher level of care ▪ *A determination of capacity for informed consent as defined by California Code of Regulations, Title 15, Section 3353.1. (Sec. III.C.7.f.1)* ▪ *Participants who lack capacity for informed consent shall be reported to the Chief of Mental Health, Supervising Dentist, CME, CNE, or CEO. (Sec. III.C.7.f.4)* ▪ Need for lab testing (CBC, CMP, magnesium, and phosphate).
35 days or more of mass or individual hunger strike participation	**NURSING** Daily nursing observation **PCP** At least weekly PCP evaluation, consideration of higher level of care placement

SUMMARY | DECISION SUPPORT | PATIENT EDUCATION/SELF MANAGEMENT

VOLUNTARY REFEEDING AFTER HUNGER STRIKE
Refeeding: Assessment of Risk and Management

Assessment of Risk of Refeeding Syndrome[1]

The relative risk of the refeeding syndrome is based on an assessment of:
- BMI
- Percentage weight loss from initial weight (if known)
- Comorbid illness
- To some degree the duration of participation in the hunger strike, though the length of participation may not accurately reflect the level of starvation

Management of Refeeding Syndrome

General Principles

- Correct biochemical abnormalities and fluid imbalances.
- Perform a medication review and a screening exam.
- Prevent symptoms (4 fundamental factors):
  - Early identification of at risk individuals
  - Lab evaluation before starting feeding
  - Monitoring during refeeding
  - Appropriate feeding regimen

Treat based on the refeeding risk assessment according to guidelines below and Table 1, page 8

NEGLIGIBLE RISK OF REFEEDING SYNDROME

Patients who have not been identified as requiring closer monitoring (no significant preexisting medical conditions and baseline BMI > 18.5 kg/m^2) and have been hunger strike participants for **≤ 14 days** are at little risk of refeeding problems.

REFEEDING RECOMMENDATIONS WITH NEGLIGIBLE RISK

- May be allowed to eat and drink freely and no specific monitoring of refeeding is necessary.
- Careful assessment of hydration status and possible tests of renal function are indicated if patient has refused fluid for several days.

MODEST RISK OF REFEEDING SYNDROME

Patients who have been identified as requiring closer monitoring during hunger strikes (preexisting medical condition or baseline BMI ≤ 18.5 kg/m^2), or meet one of the following criteria:
- BMI > 16 but < 18.5 kg/m^2
- Loss of > 10% but < 15% of their body weight during food refusal
- Refused food for 15-28 days
- BMI > 18.5 and weight loss ≤ 10% and 15-28 days of refusal of food

REFEEDING RECOMMENDATIONS WITH MODEST RISK

Location
- Refeeding can take place in a general population setting

Monitoring
- Continue daily cell side observation for two days
- RN will discuss with or refer to PCP, patients with identified signs or symptoms, in particular those on chronic care medications

Refeeding

Calorie limitation:
- Recommend ≤ 20 kcal/kg/day for the first two days (1/2 of usual CDCR diet– max 4-5 carbohydrate "servings").
- If no problems arise over first 48 hours, patient may be advised to increase consumption of the standard CDCR heart healthy diet to consume 3/4 of normal caloric intake for next two days as tolerated, then regular diet without restrictions.

Route: Oral

Nutritional Source: CDCR heart healthy diet (limited to 4-5 carbohydrate "servings" per meal see Table 4, page 11).
- Depending on institution factors and number of inmates involved, can provide "1/2 CDCR diet" by:
  - Group feeding inmates from hunger strike alone so the kitchen can prepare trays with 1/2 portions and only four to five carbohydrate "servings"/meal
  - Cell feeding inmates using trays with 1/2 portions and only 4-5 carbohydrate "servings"/meal
  - Prepare sack "lunches" for each meal that contain only 4-5 carbohydrate "servings"/meal

Fluid: Should generally be limited to around 30 ml/kg/day. This figure could be doubled if dehydration is diagnosed either clinically or on BUN/creatinine results. (Example 170 lb man = 77 kg x 30 ml/kg = 2310 ml/day)

[1] Khan: Refeeding Syndrome: A Literature Review, Gastroenterology Research and Practice Volume 2011 (2011)

SUMMARY | **DECISION SUPPORT** | **PATIENT EDUCATION/SELF MANAGEMENT**

VOLUNTARY REFEEDING AFTER HUNGER STRIKE

Refeeding: Assessment of Risk and Management (cont)

HIGH RISK OF REFEEDING SYNDROME

- BMI < 16 kg/m^2
- Weight loss > 15% of body weight since starting food refusal
- Low potassium, magnesium, or phosphate levels before the onset of feeding
- Hunger strike participant for **more than 28 days**
- Significant mental health or medical comorbidities
- BMI ≥ 16 kg/m^2 and > 28 days of refusal of food

REFEEDING RECOMMENDATIONS WITH HIGH RISK

Location

- Refeed in a licensed medical setting with 24 hour nursing, availability of daily labs, pharmacy, and dietary services.

Monitoring

♦ Na, K, Mg, Ca, glucose, BUN, Cr BEFORE refeeding, then DAILY for at least 2-3 days
♦ Liver function tests BEFORE refeeding, then REPEAT several days after refeeding resumes
♦ EKG BEFORE refeeding, then DAILY for at least 48 hours

- Normal or high serum electrolytes does not preclude the risk of refeeding syndrome as these patients may have whole body electrolyte depletion, which may amount to thousands of millimoles.
- Watch for signs of fluid overload, infection, or general deterioration, and have a low threshold for moving patient to a higher level of care should any clinical or biochemical abnormalities become concerning.
  - Likely causes of concern: potassium < 3.0 mmol/l, magnesium < 0.5 mmol/l, phosphate < 0.5 mmol/l
- Look for EKG evidence of electrolyte disturbance: potassium, calcium, magnesium, especially QT prolongation.
- Feeding should not be withheld if potassium, magnesium, or phosphate are low since electrolyte deficits are mostly intracellular and cannot be corrected without starting low levels of simultaneous feeding.

Refeeding

- **Calorie limitation**: Intake 5-10 kcal/kg/day for the first 24 hours
  If no problems occur, intake can be increased by increments of 5-10 kcal/kg/day
  Restrictions can be lifted after 5-7 days if no problems and patient taking > 35-40 kcal/kg/day
- **Route**: Oral feeding is preferred, if safe.
  Nasogastric (NG) tube (continuous or every 2 – 4 hour bolus) if the patient cannot safely take food orally.
- **Nutritional source**:
- Liquid nutritional supplement (LNS) [by mouth or NG]) which meets the specifications for refeeding in Table 1. Most LNS contains 1 kcal/ml so daily volumes are likely to be in the 300 – 400 ml range. (See Table 2, page 9)
- CDCR heart healthy diet (composition is consistent with Table 1). Amount is limited in kcal/kg/day as outlined in Table 3, page 10.
- **Fluid**: should generally be limited to no more than 30 ml/kg/day. (May need to be increased if dehydration is assessed either clinically or on BUN/creatinine results.) Attempt to maintain a "zero" fluid balance. (See Table 1)
  (Example 170 lb man = 77 kg x 30 ml/kg = 2310 ml/day)
- **Multivitamin and trace element supplement** should be provided:
  - Thiamine, 100 mg by mouth daily X 7 days
  - B complex, 1 by mouth daily X 7 days
  - Multivitamin, one by mouth daily x 60 days
- **Mineral supplements: strongly consider** phosphate, potassium, and magnesium as outlined in Table 1 (page 8) even if baseline levels are normal. Due to whole body depletion, even patients with renal failure (who may have elevated serum electrolytes) are likely to need supplementation as refeeding and fluid replacement progresses and renal function improves.
- If the patient is at a community hospital and stable after 72 hours, the sending institution/utilization management nurse shall contact the hospital to discuss discharge.

STAGES OF FASTING

Fasting is generally well tolerated for up to 2 weeks as long as fluid intake is sufficient.
Early fasting weight loss can be 1-2 kg per day.

BASELINE (DAY 0)	Usual Diet Carbohydrates are the primary calorie source (approximately 60% of normal diet). After eating a meal → blood sugar rises → insulin is released. Insulin: ▪ Promotes glucose uptake and storage (glycogenesis) ▪ Inhibits fat breakdown ▪ Increases uptake of intracellular potassium Excess caloric intake is converted to fat.
Day 1-3 Fasting	Hunger pangs and stomach cramps disappear after the 2nd to 3rd day. Glucose levels begin to fall → glucagon is released and insulin secretion falls. Glycogen stores are depleted in an effort to maintain glucose levels. Glycogen stores rarely last more than 72 hours.
Day 4-13 Fasting	Brain and RBCs require glucose as energy source. With depletion of glycogen stores, glucose is made from non-carbohydrate sources (e.g., from muscle protein) (this is gluconeogenesis). Fatty acids are broken down to provide energy as well (for organs other than brain and RBCs). Body fat and protein (muscle) are lost, as well as total body potassium, phosphate, magnesium. Serum electrolyte levels are maintained at the expense of intracellular stores.
Day 14-34 Fasting	Symptoms may include: dizziness, 'feeling faint', difficulty standing, 'lightheadedness' or 'mental sluggishness', sensation of cold, weakness, loss of thirst, fits of hiccoughs. Physical findings: severe ataxia, bradycardia, orthostatic hypotension. Hydration status needs to be closely monitored. Excess saline administration may cause hypokalemia. Thiamine deficiency occurs in the second or third week of fasting. The average weight loss in this phase is 0.3 kg per day.
Day 35-42 Fasting	This is considered the most unpleasant phase by those who have survived prolonged fasting due to the symptoms of thiamine deficiency: ♦ Oculomotor symptoms develop due to progressive paralysis of ocular muscles from thiamine deficiency, these include: ▪ Uncontrollable nystagmus ▪ Diplopia, converging strabismus ▪ Vertigo (very unpleasant) ▪ Vomiting ♦ Extreme difficulty swallowing water ♦ Medical complications arise at ≥18% loss of initial body weight
Day 43 and Later Fasting	Progressive asthenia (malaise, fatigue) ▪ Increasing confusion, incoherence ▪ Profound concentration problems ▪ Somnolence, indifference to surroundings More serious complications: ▪ Loss of hearing and/or eyesight ▪ Hemorrhage: gingival, esophageal, other gastrointestinal sites Organ failure: extreme bradycardia, Cheyne-Stokes respiration, disruption of all metabolic activity Life-threatening symptoms develop at 30% loss of initial body weight
Day 45 –75 Fasting	Death from cardiovascular collapse and/or severe ventricular dysrhythmia (e.g., prolonged QT). More rarely, lactic acidosis from sepsis due to immune system dysfunction, small bowel obstruction, or multiple organ failure.

REFEEDING SYNDROME (RFS)[1]

Definition:

- Refeeding syndrome (RFS) describes the biochemical changes, clinical manifestations, and complications that can occur as a consequence of feeding a malnourished catabolic individual.
- RFS is not defined by a clear set of signs and symptoms.
- There is no internationally agreed definition of RFS; it is a term referring to a wide spectrum of biochemical abnormalities and clinical consequences.
- Hypophosphatemia is the adopted surrogate marker to diagnose RFS though low serum phosphate is not pathognomonic.
- There are limitations to relying on low serum phosphate as levels may be normal in patients with multiple organ failure, in the presence of impaired renal function, or in patients in a stable state of starvation prior to onset of feeding.

Physiology:

- Reintroduction of nutrition to a starved or fasted individual results in a rapid decline in both gluconeogenesis and anaerobic metabolism mediated by the rapid increase in serum insulin.
- Insulin stimulates the movement of extracellular potassium, phosphate, and magnesium to the intracellular compartment with rapid fall in the extracellular concentration of these ions.
- Sodium and water are retained to maintain osmotic neutrality.
- Reactivation of carbohydrate-dependent metabolic pathways increases demand for thiamine, a cofactor required for cellular enzymatic reactions.
- The deficiencies of phosphate, magnesium, potassium, and thiamine occur to varying degrees and have different effects in different patients.

Clinical Manifestations:

- Symptoms of RFS are variable, unpredictable, may occur without warning, and may occur late.
- Symptoms occur because changes in serum electrolytes affect the cell membrane impairing function in nerve, cardiac, and skeletal muscle cells.
- Variable clinical picture in RFS reflects the type and severity of biochemical abnormalities.
- Mild derangements in electrolytes may cause no symptoms.
- More often, the spectrum of presentation ranges from simple nausea or vomiting to lethargy, respiratory insufficiency, cardiac failure, hypotension, arrhythmias, delirium, coma, and death.
- Clinical deterioration may occur rapidly.
- Low serum albumin concentration may be an important predictor for hypophosphatemia.

The optimum timing for correcting abnormalities in established RFS has been controversial.
The view that correction of electrolyte abnormalities must occur before commencement of feeding has been revised and recent National Institute of Health and Clinical Excellence guidelines from the United Kingdom indicate that feeding and correction of biochemical abnormalities can occur in tandem without deleterious effects to the patient, but no randomized control trial data is available to support either view.

[1] Khan: Refeeding Syndrome: A Literature Review, Gastroenterology Research and Practice Volume 2011 (2011),

TABLE 1: REFEEDING CALORIE & SUPPLEMENT RECOMMENDATIONS FOR HIGH RISK PARTICIPANTS*

Day	Calorie Intake (All feeding routes)	Monitoring and Treatment Supplements
Day 1 Refeeding	For extreme cases: 5 kcal/kg/day[Ŧ] Other cases: 10 kcal/kg/day[Ŧ] Composition of refeeding diet: Carbohydrate: 50-60% Fat: 30-40% Protein: 15-20% If RFS is suspected based on clinical and biochemical assessment or the patient develops intolerance to artificial nutritional support, the energy intake should be reduced or stopped.	Mineral Supplements: Phosphate: 0.5-0.8 mmol/kg/day Potassium: 1-3 mmol/kg/day Magnesium: 0.3-0.4 mmol/kg/day Sodium: < 1 mmol/kg/day (restricted) IV fluids: Restricted, maintain "zero" fluid balance Vitamins: IV Thiamine + vitamin B complex 30 minutes prior to feeding Cardiac and lab monitoring as required
Day 2-4	Increase by 5 kcal/kg/day[Ŧ] as tolerated. If RFS is suspected based on clinical and biochemical assessment or the patient develops intolerance to artificial nutritional support, the energy intake should be reduced or stopped.	Check all biochemistry and correct any abnormalities Thiamine + vitamin B complex orally or IV until day 3 Cardiac and lab monitoring as required
Day 5-7	Increase up to 20-30 kcal/kg/day[Ŧ] If RFS is suspected based on clinical and biochemical assessment or the patient develops intolerance to artificial nutritional support, the energy intake should be reduced or stopped. Feeding rate should be increased to meet full requirements for fluid, electrolytes, vitamins, and minerals if the patient is clinically and biochemically stable.	Check electrolytes, renal and hepatic function and minerals Fluid: maintain "zero" fluid balance Consider iron supplement from day 7 Cardiac and lab monitoring as required
Day 8-10	30 kcal/kg/day[Ŧ] or increase to full requirement Feeding rate should be increased to meet full requirements for fluid, electrolytes, vitamins, and minerals if the patient is clinically and biochemically stable.	Cardiac and lab monitoring as required

- *Much of the literature on Refeeding Syndrome comes from experience with severely ill, catabolic patients in the Intensive Care Unit. Often these patients had underlying chronic illnesses as well and/or were post-op.*
- *Experience with two prior mass hunger strikes at CDCR (in 2011), both lasting 21 days, demonstrated that most inmate participants refused to be weighed or be evaluated by health care staff. Participants ended their hunger strike after various lengths of time. Even those who accepted no CDCR food for 21 days did well and did not manifest any problems with refeeding, even though they declined to follow recommendations for gradual reintroduction of kcal.*

*** High risk of refeeding syndrome:**

- Food refusal more than 28 days
- BMI < 16 kg/m^2
- Weight loss > 15% during the hunger strike
- Low potassium, magnesium, or phosphate levels before resumption of feeding
- Medical or mental health conditions creating high risk of complications from fasting

[Ŧ]Measure weight daily to use for all calculations

TABLE 2: LIQUID NUTRITION SUPPLEMENT FOR HIGH RISK PARTICIPANTS*

Table 2: Suggested Refeeding Regimen for Hunger Strike Patients Using Liquid Nutritional Supplement Based on Recommended Requirements in Table 1

- Patients at high risk for refeeding syndrome initially may require liquid nutritional supplement (LNS) feeding.
- LNS meets the recommended requirements for use in refeeding and can be given orally or via tube feeding.
- LNS may also be indicated for patients who do not gain weight upon refeeding and who have lost > 10% of body weight. (IMSP&P Vol 4., Ch 20.2 Outpatient Dietary Intervention Procedure)
- Generally start with 10 kcal/kg/day (5 kcal/kg/day in very severe cases)

Nutren® 1.0 (Product Code Number 9871616210)**	
Kilocal/ml	1.0
Caloric Distribution (% Kcal) Protein Carbohydrate Fat	 16% 50% 34%
Protein Source	Calcium-Potassium Caseinate
NPC:N Ratio	133:1
N6:n3 Ratio	4.1:1
Osmolality (mOsm/kg water)	370
Free water	85%
Meets 100% RDI for 21 key nutrients	1500 ml
Appropriate for these diets	Lactose-free, gluten-free, low residue, kosher, low-sodium, low -cholesterol

**Or other Liquid Nutritional Supplement that has a caloric distribution that falls within the following ranges: protein 15-20%, carbohydrate 50-60%, and fat 30-40%

Day 1 10 kcal/kg/day	10 kcal x 72 kg[Ŧ]=720 kcal x 1 kcal/ml = 720 ml/day Provide in 6 small feedings of **120 ml/feeding** Approximate feeding times are as follows: 6:00 AM, 9:00 AM, 12:00 PM, 3:00 PM, 6:00 PM, 9:00 PM
Day 2 15 kcal/kg/day	15 kcal x 72 kg[Ŧ]= 1080 kcal x 1 kcal/ml = 1080 ml/day Provide in 6 small feedings of **180 ml/feeding** Approximate feeding times are as follows: 6:00 AM, 9:00 AM, 12:00 PM, 3:00 PM, 6:00 PM, 9:00 PM
Day 3-4 20 kcal/kg/day	20 kcal x 72 kg[Ŧ]= 1440 kcal x 1 kcal/ml = 1440ml/day Provide in 6 small feedings of **240 ml/feeding** Approximate feeding times are as follows: 6:00 AM, 9:00 AM, 12:00 PM, 3:00 PM, 6:00 PM, 9:00 PM
Day 5-6 25 kcal/kg/day	25 kcal x 72 kg[Ŧ]= 1800 kcal x 1 kcal/ml = 1800ml/day Provide in 6 small feedings of **300 ml/feeding** Approximate feeding times are as follows: 6:00 AM, 9:00 AM, 12:00 PM, 3:00 PM, 6:00 PM, 9:00 PM
Day 7-8 30 kcal/kg/day	30 kcal x 72 kg[Ŧ]= 2160 Kcal x 1 kcal/ml = 2160ml/day Provide in 6 small feedings of **360 ml/feeding** for gradual introduction. Approximate feeding times are as follows: 6:00 AM, 9:00 AM, 12:00 PM, 3:00 PM, 6:00 PM, 9:00 PM

[Ŧ]Daily weights should be taken and used for calculations

* High risk, see page 5

TABLE 3: REFEEDING USING CDCR HEART HEALTHY DIET FOR HIGH RISK PARTICIPANTS*

Table 3: Suggested Refeeding Regimen for Hunger Strike Patients Using CDCR Heart Healthy Menu (For patients who can tolerate solid food.) Based on Recommended Requirements in Table 1

CDCR heart healthy diet
- Average Daily Calories 2750
- Approximate Caloric distribution (% kcal)
  - Protein 15 %
  - Fat 30%
  - Carbohydrate 55%

Note: Limiting "carbs" in the initial phase of refeeding is important. Most CDCR meal menus provide 7-9 carbohydrate "servings" (15 grams of carbohydrate = 1 serving/meal).
When adjusting/preparing refeeding trays/sacks, limit carbohydrate servings to 4-5/meal. (See Table 4).

The table below illustrates how to refeed using CDCR Heart Healthy Menu for a patient whose current weight is 158 lbs / 72 kg after coming off a hunger strike for over 14 days.

High Risk for RFS	Sample Heart Healthy Diet Menu Choices
Day 1 10 kcal/kg/day	10 kcal x 72 kg[Ŧ]=720 kcal/day Breakfast- 4 oz nonfat milk, 2 oz hot cereal, 1 oz breakfast meat or eggs, 2 oz juice Lunch- 1 slice bread, 2 oz meat with 1 package mustard or 2 oz peanut butter, 1 small fresh fruit, 8 oz salt free (SF) beverage Dinner- 2 oz meat, 4 oz vegetables, 2 oz starch, 4 oz fruit, 8 oz SF beverage
Day 2 15 kcal/kg/day	15 kcal x 72 kg[Ŧ]= 1080 kcal/day Breakfast- 4 oz nonfat milk, 2 oz breakfast meat or eggs, 4 oz hot cereal, 2 oz juice Lunch- 3 slices bread, 2 oz meat with 1 package mustard, 1 small fresh fruit, 8 oz SF beverage Dinner- 3 oz meat, 4 oz vegetables, 4 oz starch, 4 oz fruit, 8 oz SF beverage
Day 3-4 20 kcal/kg/day	20 kcal x 72 kg[Ŧ]= 1440 kcal /day Patient to eat ½ **portion** of foods/beverages with provision of 4-5 carbohydrate "counts"/ meal at each meal served. (SF beverage 100%)
Day 5-6 25 kcal/kg/day	25 kcal x 72 kg[Ŧ]= 1800 kcal /day Patient to eat ⅔ **portion** of all foods/beverages with provision of 4-5 carbohydrate "counts"/ meal at each meal served. (SF beverage 100%)
Day 7-8 30 kcal/kg/day	30 kcal x 72 kg[Ŧ]= 2160 kcal/day Patient to eat ¾ **portion** of all foods/beverages with provision of 4-5 carbohydrate "counts"/ meal at each meal served. (SF beverage 100%)

[Ŧ]Daily weights should be taken and used for calculation.
* High risk, see page 5

TABLE 4: EXAMPLE CDCR MENU WITH CARBOHYDRATE COUNT

Typical CDCR heart healthy meals contain 7-9 "servings" of carbohydrate/meal. (15 gram carbohydrate = 1 serving) Carbohydrate (CHO) counts are calculated for each meal and the current CHO counting menu can be found on Medical Services → Dietary Services → Lifeline page under Diabetic Education materials
(Note: AE is "Alternate Entrée" for religious diets)

BREAKFAST		Carb Choices	LUNCH		Carb Choices	DINNER		Carb Choices
100% FRUIT JUICE	4 OZ	1	LUNCHMEAT SANDWICH			GREEN SALAD W/DRSG	3/4CP/1 EA	0
CRACKED WHEAT CEREAL	6 OZ	1 1/2	...LUNCHMEAT	2 OZ	0	BREADED FISH	4 OZ	1
PANCAKES, 4"	3 EA	4	...MUSTARD	2 PK	0	BAKED POTATO	1 EA	1 1/2
P BUTTER	2 OZ	1	...WHEAT BREAD	4 SL	4	BROCCOLI	4 OZ	0
...OR SAUSAGE -PIA	2 OZ	0	SUNFLOWER SEEDS	1 PK	1/2	WHEAT BREAD	2 SL	2
SYRUP	2 OZ	2 1/2	GRAHAM CRACKERS	2 PK	1 1/2	COCKTAIL SAUCE	1 OZ	1/2
...OR DIET SYRUP	2 OZ	0	FRESH FRUIT	1 EA	1	MARGARINE READIES	2 EA	0
MARGARINE READIES	2 EA	0	SUGAR FREE BEVERAGE	1 PK	0	ICED CAKE	1 PC	2 1/2
NONFAT MILK-PIA	8 OZ	1			7	SUGAR FREE BEVERAGE	8 OZ	0
COFFEE-PIA	8 OZ	0						7 1/2
		11						
PEANUT BUTTER (AE)	2 OZ	1	CHEESE SLICE 2/3 OZ (AE)	3 EA	0	VEG BEANS (AE)	8 OZ	2 1/2
		Carb Choices			Carb Choices			Carb Choices
FRUIT SERVING	4 OZ	1	LUNCHMEAT SANDWICH					
OATMEAL	6 OZ	1 1/2	...LUNCHMEAT	2 OZ	0	GREEN SALAD W/DRSG	3/4CP/1 EA	0
EGGS-PIA	2 EA	0	...MUSTARD	2 PK	0	TAMALE PIE-PIA	8 OZ	2
TRI-TATER POTATOES	2 EA	2	...WHEAT BREAD	4 SL	4	SPANISH RICE	6 OZ	2
WHEAT TOAST/BREAD	2 SL	2	CHIPS	1 PK	1	GREEN BEANS	4 OZ	0
MARGARINE READIES	2 EA	0	COOKIES-PIA	1.25 OZ	2	TORTILLAS	2 EA	3
NONFAT MILK-PIA	8 OZ	1	FRESH FRUIT	1 EA	1	BROWNIE, PLAIN	1 PC	1 1/2
COFFEE-PIA	8 OZ	0	SUGAR FREE BEVERAGE	1 PK	0	SUGAR FREE BEVERAGE	8 OZ	0
		7 1/2			8			8 1/2
			CHEESE SLICE 2/3 OZ (AE)	3 EA	0	VEG BEANS (AE)	8 OZ	2 1/2
						TURKEY HOT DOGS(RMA)	2 EA	0
		Carb Choices			Carb Choices			Carb Choices
STEWED PRUNES	4 OZ	1	PEANUT BUTTER SANDWICH			GREEN SALAD W/DRSG	3/4CP/1 EA	0
HOMINY GRITS	6 OZ	1 1/2	...PEANUT BUTTER -PIA	2 OZ	1	2 EGG ROLLS	2 OZ	2
COFFEE CAKE, 4"X4"	1 EA	2 1/2	...JELLY-PIA	1 0Z	1 1/2	PANCIT OR FRIED RICE	6 OZ	2
2 OZ P BUTTER	2 OZ	1	...OR DIET JELLY	1 OZ	0	GREEN BEANS	4 OZ	0
...OR 2 EGGS-PIA	2 EA	0	...WHEAT BREAD	4 SL	4	ICED CAKE	1 PC	2 1/2
WHEAT TOAST/BREAD	2 SL	2	CARROT COINS	1 PK	0	SUGAR FREE BEVERAGE	8 OZ	0
NONFAT MILK-PIA	8 OZ	1	GRAHAM CRACKERS	2 PK	1 1/2			6 1/2
COFFEE-PIA	8 OZ	0	FRESH FRUIT	1 EA	1			
		9	SUGAR FREE BEVERAGE	1 PK	0			
					9			
						PANCIT OR FRIED RICE (AE)	4 OZ	2
						BREADED CHICKEN PATTY	1 EA	1
		Carb Choices			Carb Choices			Carb Choices
FRESH FRUIT	1 EA	1	LUNCHMEAT/CHEESE SANDWICH			COLESLAW	4 OZ	0
COLD CEREAL, FORTIFIED	1 EA	1 1/2	...LUNCHMEAT/CHEESE	2 OZ	0	GOULASH ON NOODLES	6 OZ/1 CP	2
COUNTRY BREAKFAST	6 OZ	1 1/2	...MUSTARD	2 PK	0	GREEN PEAS	4 OZ	1
OVEN BAKED POTATO WEDGES	4 OZ	1 1/2	...WHEAT BREAD	4 SL	4	PINTO BEANS	6 OZ	2
BISCUIT, 3 OZ	1 EA	2	ALMONDS-PIA	1 PK	1/2	CORNBREAD, 3"x3"	1 PC	2
NONFAT MILK-PIA	8 OZ	1	COOKIES-PIA	1.25 OZ	2	MARGARINE READIES	2 EA	0
COFFEE-PIA	8 OZ	0	FRESH FRUIT	1 EA	1	PUDDING	4 OZ	2
		8 1/2	SUGAR FREE BEVERAGE	1 PK	0	SUGAR FREE BEVERAGE	8 OZ	0
					7 1/2			9
EGGS (AE)	2	0	CHEESE SLICE 2/3 OZ (AE)	3 EA	1/2	BEANS (AE)	6 OZ	2
						HAMBURGER PATTY (RMA)	1 EA	0
		Carb Choices			Carb Choices			Carb Choices
FRUIT SERVING	4 OZ	1	TUNA CALZONE	1 EA		GREEN SALAD W/DRSG	3/4CP/1 EA	0
CORNMEAL MUSH	6 OZ	2 1/2			0	TURKEY TETRAZZINI	8 OZ	2
BEEF HASH-PIA	6 OZ	2			0	MIXED VEGETABLES	4 OZ	1/2
EGG-PIA	1 EA	0			0	DINNER ROLL 2 OZ	1 EA	2
WHEAT TOAST/BREAD	2 SL	2			4	MARGARINE PATTIES	2 EA	0
MARGARINE READIES	2 EA	0	PBU/CHSE CRACKERS	1 PK	1	FRUIT CRISP	4OZ	4
NONFAT MILK-PIA	8 OZ	1	COOKIES-PIA	1.25 OZ	2	SUGAR FREE BEVERAGE	8OZ	0
COFFEE-PIA	8 OZ	0	FRESH FRUIT	1 EA	1			
		8 1/2	SUGAR FREE BEVERAGE	1 PK	0			8 1/2
					8			
			...JELLY-PIA / DIET JELLY	1 OZ	1 1/2			
			...OR DIET JELLY	1 OZ	0			
EGG -PIA (AE)	1 EA	0	PEANUT BUTTER -PIA (AE)	2 OZ	1	VEG BEANS (AE)	8 OZ	2 1/2
						TURKEY HOT DOGS (RMA)	2 EA	0
		Carb Choices			Carb Choices			Carb Choices
CANNED FRUIT	4 OZ	1	SUB SANDWICH			GREEN SALAD W/DRSG	3/4CP/1 EA	0
COOKED RICE CEREAL	6 OZ	1 1/2	...LUNCHMEAT/CHEESE	2 OZ	0	POULTRY/BEEF HOT DOGS -PIA	2 EA	1 1/2
EGGS-PIA	2 EA	0	...HOAGIE ROLL	1 EA	3	HOTDOG BUNS	2 EA	2
PINTO BEANS	6 OZ	2	...RELISH	1 EA	0	RED CHILI BEANS	6 OZ	2
TORTILLAS	2 EA	3	...MUSTARD	2 EA	0	MIXED VEGETABLES	4 OZ	1/2
SALSA	2 OZ	0	...MAYONNAISE PACKET	1 EA	0	CHEESE SHREDDED	1 OZ	0
NONFAT MILK-PIA	8 OZ	1	GRAHAM CRACKERS	2 PK	1 1/2	ONIONS	1 OZ	0
COFFEE-PIA	8 OZ	0	FRESH FRUIT	1 EA	1	KETCHUP	1 EA	0
		8 1/2	SUGAR FREE BEVERAGE	1 PK	0	MUSTARD	1 EA	0
					5 1/2	SHORTCAKE W/ FRUIT TOPPING	1 PC	2 1/2
						SUGAR FREE BEVERAGE	8 OZ	0
								8 1/2
			CHEESE SLICE (AE)	3 EA	0	BEANS (AE)	6 OZ	2
						BR CHICKEN PATTY (RMA)	1 EA	1

BMI CALCULATOR:

Body Mass Index Table

	Normal						Overweight					Obese										Extreme Obesity																				
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Height (inches)	Body Weight (pounds)																																								
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443

Source: Adapted from *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.*

CALIFORNIA CORRECTIONAL HEALTH CARE SERVICES

To the Emergency Department (ED) and Hospital Staff:
This patient is at risk for refeeding syndrome

Thank you for caring for our patient.
This patient has been on a protracted hunger strike with no documented nutritional intake of state provided meals over the past _____ days.

- His or her oral intake may have consisted of water only.
- Some patients may have had access to canteen food or food from other sources but this cannot be confirmed or assumed.

Please **DO NOT FEED THE PATIENT IN THE EMERGENCY DEPARTMENT**

It is safe to administer intravenous fluid (including dextrose) in the ED, but **IV Thiamine** should be added to the IV fluid along with supplementation of **potassium, magnesium,** and **phosphate** as outlined in the CCHCS refeeding guidance on page 14, labeled Table 1.

Please monitor carefully for **hypokalemia, hypophosphatemia, and hypomagnesemia.** While baseline electrolytes will likely be normal prior to administration of fluids or food, these will rapidly shift intracellularly following refeeding. Problems can arise at any time in the first week after refeeding has begun.

Once admitted, please continue to monitor the patient's labs with particular attention to phosphate, potassium, magnesium, calcium, creatinine, and glucose.

Cardiac monitoring may be indicated.

- Refeeding regimens will vary depending on the severity of the patient's starvation, weight loss, pre-fast BMI, and comorbid medical conditions.
- All refeeding regimens suggest starting feeding at 5-10 kcal/kg/day (depending on severity).
- Composition of feeding should be lower glucose (**no Ensure!**). Khan[1] recommends 50-60% carbohydrate, 30-40% fat and 15-20% protein.
- Kcal/kg is increased as tolerated over 5-10 days. (*If this patient is stable at 3 days and is taking at least 20 kcal/kg please contact the sending institution or UM for discussion of discharge timing.*)

Helpful references:

1.) *Refeeding Syndrome: A Literature Review,* L. U. R. Khan, J. Ahmed, S. Khan, and J. MacFie , Gastroenterology Research and Practice Volume 2011
2.) *Refeeding syndrome: what it is, and how to prevent and treat it,* Hisham M Mehanna, consultant and honorary associate professor, BMJ 2008;336:1495-1498

Please contact our institution for questions: Telephone # _____
Note to health care staff: Send pages 13 and 14 of this guide to ED with patient.

[1] Khan: Refeeding Syndrome: A Literature Review, Gastroenterology Research and Practice Volume 2011 (2011)

CALIFORNIA CORRECTIONAL HEALTH CARE SERVICES

To the Emergency Department and Hospital Staff: This patient is at risk for Refeeding Syndrome

TABLE 1: REFEEDING CALORIE & SUPPLEMENT RECOMMENDATIONS FOR HIGH RISK PARTICIPANTS*

Day	Calorie Intake (All feeding routes)	Monitoring and Treatment Supplements
Day 1 Refeeding	For extreme cases: 5 kcal/kg/day[Ŧ] Other cases: 10 kcal/kg/day[Ŧ] Composition of refeeding diet: Carbohydrate: 50-60% Fat: 30-40% Protein: 15-20% If Refeeding Syndrome (RFS) is suspected based on clinical and biochemical assessment or the patient develops intolerance to artificial nutritional support, the energy intake should be reduced or stopped.	Mineral Supplements: Phosphate: 0.5-0.8 mmol/kg/day Potassium: 1-3 mmol/kg/day Magnesium: 0.3-0.4 mmol/kg/day Sodium: < 1 mmol/kg/day (restricted) IV fluids: Restricted, maintain "zero" fluid balance Vitamins: IV Thiamine + vitamin B complex 30 minutes prior to feeding Cardiac and lab monitoring as required
Day 2-4	Increase by 5 kcal/kg/day[Ŧ] as tolerated. If RFS is suspected based on clinical and biochemical assessment or the patient develops intolerance to artificial nutritional support, the energy intake should be reduced or stopped.	Check all biochemistry and correct any abnormalities Thiamine + vitamin B complex orally or IV until day 3 Cardiac and lab monitoring as required
Day 5-7	Increase up to 20-30 kcal/kg/day[Ŧ] If RFS is suspected based on clinical and biochemical assessment or the patient develops intolerance to artificial nutritional support, the energy intake should be reduced or stopped. Feeding rate should be increased to meet full requirements for fluid, electrolytes, vitamins, and minerals if the patient is clinically and biochemically stable.	Check electrolytes, renal and hepatic function and minerals Fluid: maintain "zero" fluid balance Consider iron supplement from day 7 Cardiac and lab monitoring as required
Day 8-10	30 kcal/kg/day[Ŧ] or increase to full requirement Feeding rate should be increased to meet full requirements for fluid, electrolytes, vitamins, and minerals if the patient is clinically and biochemically stable.	Cardiac and lab monitoring as required

- *Much of the literature on Refeeding Syndrome comes from experience with severely ill, catabolic patients in the Intensive Care Unit. Often these patients had underlying chronic illnesses as well and/or were post-op.*
- *Experience with two prior mass hunger strikes at CDCR (in 2011), both lasting 21 days, demonstrated that most inmate participants refused to be weighed or be evaluated by health care staff. Participants ended their hunger strike after various lengths of time. Even those who accepted no CDCR food for 21 days did well and did not manifest any problems with refeeding, even though they declined to follow recommendations for gradual reintroduction of kcal.*

*** High risk of refeeding syndrome:**
- Food refusal more than 28 days
- BMI < 16 kg/m^2
- Weight loss > 15% during the hunger strike
- Low potassium, magnesium, or phosphate levels before resumption of feeding
- Medical or mental health conditions creating high risk of complications from fasting

[Ŧ]Measure weight daily to use for all calculations

PATIENT EDUCATION/SELF MANAGEMENT

HUNGER STRIKE PATIENT FACT SHEET

RISKS OF FLUID REFUSAL

- Not drinking fluid can cause **death** within days.
- Not drinking fluid can cause lasting organ damage.
- You will get symptoms very soon if you do not drink fluids.
- You should drink at least 6 cups of fluid every day.

RISKS OF FASTING

- Not eating food for a long time (prolonged fasting) can cause **death.**
- Not eating food can cause lasting organ damage.
- You may become dizzy during your hunger strike. You should move slowly and carefully to avoid falls.
- You may get many other symptoms the longer you refuse food such as: weakness, confusion, vomiting, stomach pain, and higher risk of infections.
- If you are in good health when you start to refuse food and you keep on drinking water, you will probably survive for weeks.
- After prolonged fasting (starvation) you may have lasting organ damage even after you start eating again and gain weight.

RISKS OF REFEEDING

- **Death** may happen when you start eating after not eating for a long time. This is called refeeding syndrome.
- If you have lost more than 10 lbs or have not eaten for more than 14 days, talk to health care staff **before** you eat again.
- Your risk of death is less if you start eating under medical care.
- If you have not eaten for many days, you should start to eat by taking only small amounts of food the first few days and then step up to normal eating over 5-7 days.

ABOUT YOUR HUNGER STRIKE

- MONITORING: Health care staff will watch you for signs of serious illness during your hunger strike.
- ACCESS TO HEALTH CARE: You may access health care services at any time during your hunger strike just like when you are not on a hunger strike.
- MEDICATION CHANGES: Your primary care provider may change or stop some of your medications during your hunger strike to lower your risk of problems.

PATIENT EDUCATION/SELF MANAGEMENT

Information for Patients with Prolonged Fasting

WHAT YOU NEED TO KNOW

- You have not been eating for such a long time that you are in danger of lasting medical harm, even with medical care.
- You may die, even after you start to eat again.
- Now is the time for you to think about what medical care you want when you are no longer able to talk to health care staff.
- Health care staff is concerned about your health so they will check with you to see if you understand that you may die if you refuse food or fluid and that you have clear reasons for refusing food or fluid.
- If you go into a coma or your heart stops, you will get all the medical care needed to try to save your life, including CPR, food, and fluids.
- Health care staff will not give you food or fluid if you make it clear that you do not want them to.

Advance Directive for Health Care
(Form Number, CDCR 7421)

- You should fill out the Advance Directive form if you want to name someone who can make medical decisions for you when you are unable to speak for yourself. This person should be someone who knows your wishes and is willing, able, and available to make these decisions.
- An Advance Directive also lets health care staff know what medical care you want or do NOT want when you are unable to speak for yourself.
- If you want to complete an Advance Directive, ask health care staff for the form. Before you sign it, return the completed form to your health care provider to talk about your choices.

Physician Orders for Life-Sustaining Treatment (POLST)
(Form Number, CDCR 7465)

- A POLST form is a doctor's order that stays in your medical record. The POLST form records your wishes about specific life saving treatments.
- This form is completed by you and your health care provider.

If you have questions or are concerned about changes in your health you may contact health care staff at any time.

EDUCATIÓN PARA EL PACIENTE/CONTROL PERSONAL DEL CASO

FOLLETO SOBRE LA HUELGA DE HAMBRE

RIESGOS SI UD. REHUSA BEBER LÍQUIDOS

- Si no bebe líquidos puede morirse dentro de días.
- Si no bebe suficiente líquido puede causarle daño permanente a sus órganos internos.
- Si no bebe líquidos sentirá síntomas dentro de poco tiempo.
- Debe beber por lo menos seis vasos de líquido cada día.

RIESGOS DEL AYUNO

- Puede morirse si no come durante mucho tiempo (ayuno prolongado).
- Si no come puede causarle daño permanente a sus órganos internos.
- Podrá marearse durante su huelga de hambre. Debe moverse lentamente y con cuidado para evitar las caídas.
- Entre más tiempo rehúsa comer, podrá experimentar muchos otros síntomas tales como la debilidad, la confusión, el vómito, el dolor de estómago, y un riesgo mayor de infecciones.
- Si está bien de salud cuando empieza a rehusar comida pero sigue bebiendo agua, es probable que podrá sobrevivir por semanas.
- Después de un ayuno prolongado (inanición) podrá sufrir daño permanente en los órganos internos aunque empiece a comer y aumentar de peso.

RIESGOS CUANDO EMPIEZA A COMER DE NUEVO

- Puede morirse cuando empieza a comer de nuevo después de ayunar por mucho tiempo. Este fenómeno se llama Síndrome de Realimentación.
- Si ha perdido más de diez libras o no ha comido durante más de catorce días, hable con el personal médico antes de empezar a comer.
- El riesgo de muerte es menor si empieza a comer bajo atención médica.
- Si no ha comido durante muchos días, debe empezar a comer solamente pequeñas cantidades de comida los primeros días y luego pasar a una alimentación normal durante un periodo de cinco a siete días.

ACERCA DE LA HUELGA DE HAMBRE

- OBSERVACIÓN: El personal médico le observará para detectar señales de una enfermedad seria durante la huelga de hambre.
- ACCESO A LA ATENCIÓN MÉDICA: Puede acudir a los servicios de salud en cualquier momento durante su huelga de hambre al igual que cuando no está en huelga de hambre.
- CAMBIOS EN MEDICAMENTOS: Su médico (de cabecera) podrá cambiar o descontinuar algunos de sus medicamentos durante la huelga de hambre para reducir el riesgo de problemas.

EDUCATIÓN PARA EL PACIENTE/CONTROL PERSONAL DEL CASO

Información para el Paciente en Ayuno Prolongado

LO QUE NECESITA SABER

- No ha estado comiendo por tanto tiempo que hay peligro de daño médico permanente aunque reciba atención médica.
- Podrá morir aún después de empezar a comer de nuevo.
- Este es el momento para pensar en qué tipo de atención médica desea recibir cuando ya no tenga la capacidad de hablar con el personal médico.
- Su salud es muy importante para el personal médico de esta institución y a consecuencia van a consultar con usted para ver si entiende que puede morir si rehúsa comer o beber y que existen razones claras para tomar esta decisión.
- Si cae en un estado de coma o sufre un paro cardiaco, recibirá toda la asistencia médica necesaria para tratar de salvar su vida incluyendo reanimación cardiopulmonar, comida, y líquidos.
- Si usted indica claramente que no desea alimentos ni líquidos, el personal médico respetará su decisión.

Directiva Anticipada para Atención Médica
(Form Number, CDCR 7421)

- Usted debe llenar una Directiva Anticipada si desea nombrar a alguien que pueda tomar decisiones médicas por usted cuando usted ya no tenga la capacidad de hablar por sí mismo.
- Una Directiva Anticipada también le comunica al personal médico qué tipo de atención médica usted desea o no desea cuando ya no tenga la capacidad de hablar por sí mismo.
- Si desea completar una Directiva Anticipada, puede pedirle un formulario a cualquier integrante del personal médico. Antes de firmar el formulario, devuélvalo al médico para que le expliqué todas sus opciones.

Órdenes del Médico de Tratamiento para el Mantenimiento de la Vida
(Form Number, CDCR 7465)

- Este formulario es una orden médica que permanece en su expediente médico indicando sus deseos sobre tratamientos específicos para mantener la vida.
- Este formulario es completado por usted y su proveedor de atención médica.

Si usted tiene preguntas o está preocupado sobre cambios en su salud, puede notificar en cualquier momento al personal médico.