

ORIGINAL RESEARCH & CONTRIBUTIONS

Obesity: Problem, Solution, or Both?

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Since 1982, the Southern California Permanente Medical Group's Positive Choice Weight Loss Program in San Diego has treated more than 30,000 adults, predominantly middle-aged, for obesity—some successfully, some not. This has been an extraordinary experience and provided us with numerous counterintuitive observations. We now are convinced that obesity is widely misunderstood, and we realize that the unusual program we have operated safely and effectively for more than a quarter century is often misunderstood as well. There is growing interest in our program and in using our approach as a model for other Kaiser Permanente (KP) Regions. We therefore share an overview here of our experience with this specific program. Consequently, most referenced works in this report are publications emanating from our program, sometimes contrasting those findings with conventional views on the subject.

The Positive Choice Weight Loss Program has two integrated components:

- Prolonged absolute fasting, with the use of a supplement to support health and to prevent death from such fasting.
- A lengthy and complex group program to explore the basis of

each participant's unconscious compulsive use of food, as well as to explore the hidden benefits of obesity for that individual.

Given that the average weight loss of someone completing our 20-week program is 62 lb (28 kg) and that approximately 5000 patients each have lost more than 100 lb (45 kg), we realize we have challenged the belief systems of some who assume either that such weight loss cannot commonly be achieved or that the process of supplemented absolute fasting must be dangerous. In fact, the process has been notably safe, and major improvements in biomedical outcomes have been the norm. **This article addresses four basic issues:**

1. The safety of properly supplemented prolonged absolute fasting in obesity
2. The observed origins of obesity, and their implications
3. The components of a relevant treatment program
4. Outcomes of the Program.

Overview of Unsupplemented Starvation

The Irish hunger strikers of the early 1980s illustrated the outcome of unsupplemented, prolonged, absolute fasting. They only drank

water, and it was clear after six weeks that all involved had sustained significant weight loss and were mortally ill. By seven weeks, all were dead. They died because of profound potassium and magnesium deficiency, with consequent lethal cardiac arrhythmia. Had they received electrolyte supplementation and had the hunger strikers been obese, they could have lived for several months longer before dying because of major protein deficiency. Supplementing two essential fatty acids and the essential amino acids needed for anabolic protein turnover would have prevented such a death. Had this been done, the hunger strikers would have died toward the end of a year because of beriberi, pellagra, and scurvy. Preventing these diseases by vitamin supplementation would be straightforward. To simplify the example, we have left out the problem of calorie deficiency in these nonobese individuals. In obese individuals, body fat stores of course resolve this problem; the metabolism of these fat stores is obviously the basis for weight loss. Details of unsupplemented starvation can be found in the famous work of Ancel Keys, described in his two-volume *Biology of Human Starvation*.¹

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Safety of Supplemented Fasting

The nutritional supplement Optifast 70 was created by Sandoz Pharmaceuticals to supply electrolytes, amino acids, two essential fatty acids, and vitamins. At 420 cal/d in five feedings, this superbly designed product allows a sufficiently morbidly obese individual to cease eating all food and caloric beverages for at least a full year. In our entire experience, no death or biomedical harm has occurred in any of these individuals.

During a year of supplemented absolute fasting, a weight loss of approximately 300 lb (136 kg) will occur (Figure 1). To the degree that this does not occur, it means that the patient is consuming food, regardless of denial. Surprisingly, hunger is not a problem. However, the desire to eat is variable, ranging from minor to uncontrollable. Interestingly, this desire to eat is an issue separate from hunger. Indeed, it attests to the profound psychoactive benefits of food, as illustrated by a commonplace observation that is even built into our language: “Sit down and have something to eat; you’ll feel better.” There is truth for many in the phrase “comfort food.”

Origins of Obesity

In the early years of the Weight Program, we naively were taking morbidly obese individuals down 300 lb (136 kg) at a time, a rate of loss distinctly exceeding that of bariatric surgery. The striking results perhaps understandably led us to believe that we understood what we were doing. Counterintuitively, some of our most successful patients forced us to realize we were merely in possession of a powerful technology and had no idea what we were doing in other regards. They did this by demonstrating

that massive weight loss could precipitate divorce, severe anxiety, and sometimes suicidality. Some patients, sensing these outcomes early, fled their own success in the Program. Surprisingly, our high dropout rate was mainly limited to patients who were *successfully* losing weight. By contrast, we had other patients who were eating during the Program, routinely denying it, and losing no weight while paying a fairly significant fee, seemingly to accomplish nothing. With these patients, it took some time for us to realize that we were supplying an important support system with our group approach. It turned out that many of our obese patients had no functional support systems at home.

The striking and frankly annoying conflict between our ability quickly and safely to reduce a person’s weight and what patients appeared capable of tolerating emotionally led us to detailed exploration of the life histories of 286 of our patients. Here, we unexpectedly discovered that histories of childhood sexual abuse were common, as were histories of growing up in markedly dysfunctional households. It became evident that traumatic life experiences during childhood and adolescence were far more common in an obese population than was comfortably recognized.² We slowly discovered that major weight loss is often sexually or physically threatening and that obesity, whatever its health risks, is protective emotionally. Ultimately, we saw that certain of our more intractable public health problems such as obesity are often also unconsciously attempted solutions to problems dating back to the earliest years but hidden by time, by shame, by secrecy, and by social taboos against exploring certain areas of life experience. The antecedent life experiences of the

obese are quite different from those of the always-slender.³ Eventually, these Program findings led to the 17,000-member Adverse Childhood Experiences (ACE) Study, in which we established that the developmental damage initially discovered in our obese patients was broadly applicable to many aspects of everyday medical practice.^{4,5}

Ultimately, we learned from our patients that in obesity, we are dealing with two core problems:

- The unconscious, compulsive use of food for its psychoactive benefits
- The unrecognized and unspoken benefits of obesity.

These two core problems are markedly at variance with conventional thinking about obesity, starting with the government’s food pyramid. Worse yet, these two basic problems are uncomfortable to deal with. In reviewing the medical literature, one quickly notes that most articles purporting to discuss the *causes* of obesity quickly switch to describing the unhealthy consequences of obesity and never pursue their stated goal. One also notes the tendency to confuse intermediary mechanism with basic cause. For instance, several years ago, leptin deficiency was proposed as the cause of human obesity. Although that idea has now been discarded, someday the “real leptin” will be discovered, but it will no more be causal than increased levels of epinephrine are the cause of anxiety. Each is a necessary intermediary mechanism, not a basic cause. Understanding the difference is as essential to progress in treatment as it is to primary prevention.

Any physician choosing to validate in his patients the points being made here will be in the position of asking about topics that we have all learned are not discussed by polite

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people. Incest, rape, family suicides, and parental brutality are not readily brought up. That being the case, we physicians typically have no basis for opinions on the frequency or rarity of such life experiences. We documented these experiences as surprisingly common among our patients, but we did not know that before we began routinely inquiring about them. Counterintuitively, we learned that discussion of these experiences is usually *not* uncomfortable to those who have had them, if they are supported by someone comfortable with their discussion. Patients often find a great sense of relief in discussing their life experiences. As one patient wrote, "The shame, guilt, and pain for the abuse and molestations of childhood, and being raped, was so great that I had to come forward or die. If your questionnaire had been put in front of me, it would have shown me that people existed in the medical profession who knew about the sad things that happen to some people." This poignant statement imposes a huge responsibility on us that we can of course avoid by falling back on lack of time or lack of training as being the factor that precludes our inquiry.

The now internationally recognized ACE Study was initiated to determine the prevalence and outcomes of ten categories of such life experiences in more than 17,000 consecutive adults from KP's San Diego population.⁶ These experiences are common, and their consequences are devastating in terms of emotional damage, biomedical disease, and the costs of health care. Like a child's footprints in wet cement, the consequences are life-long. Putting it plainly in regard to obesity, we have seen that obesity is not the core problem. Obesity is the marker for the problem and



Figure 1. Patient who lost 277 lb in 51 weeks

sometimes is a solution. This is a profoundly important realization because none of us expects to cure a problem by treating its symptom.

Treatment

Given the nature of our observations about the causes of obesity, repeatedly documented in thousands of responses to our preprogram questionnaire (See <http://xnnet.kp.org/permanentejournal/spr10/PreprogramQuestionnaire.pdf> to view the questionnaire) and in more than 50 videotaped interviews, it was inevitable by the early 1990s that we revise our program to fuse two separate goals: weight loss by supplemented fasting, and helping patients identify and resolve the life experiences underlying obesity. By far the easier of the two goals is the medical management of supplemented absolute fasting. Weekly checks of potassium levels, blood pressure measurements in patients taking antihypertensive medications, and blood sugar levels in patients with diabetes are our most common tracking measures other than weight itself. Other details of biomedical management are equally straightforward but are not the point of this article. Chronic disease is not a reason for exclusion from the Program; most such patients

should actually be sought for Program inclusion if obese. Our only absolute exclusions are pregnancy and recent myocardial infarction or stroke. Optifast 70, drunk five times daily for a total daily intake of 420 cal, is a remarkable material that makes biologically safe the otherwise unthinkable. The remainder of the day's caloric needs come from body fat stores as long as those fat stores exist. It is important to understand that Optifast 70 has one function only: the prevention of death from prolonged absolute fasting. It does not take weight off people; not eating does that. And it has nothing to do with whether lost weight is regained or kept off; that outcome is solely a function of what is accomplished or not accomplished by the group work of the Program.

By contrast with the simplicity of fasting, the weekly two-hour group meetings of the Program are a complex endeavor that is difficult for some patients to engage in and is difficult to train staff to pursue vigorously. **By the mid-1980s, we had learned that our initial goal of teaching people to "eat right" was totally irrelevant to obesity, although it seemed a reasonable thing to do when we did not know what to do.** In retrospect, we

should have known better because most of us knew that overweight, middle-aged women commonly know enough about calorie content to give a dietitian a run for his or her money any day of the week. Nutrition is an interesting and important subject that has no more relationship to obesity than it does to anorexia. The role of the Program is to help people recognize and find an acceptable alternate solution or resolution to the underlying problems being treated with food. We are at an early stage of success; the work is difficult because it is resisted by some patients and can awaken personal ghosts in staff, but we have clearly established a beachhead on the right beach and slowly are moving inland.

In the course of detailed interviewing of about 2000 obese patients over the past 20 years, in-depth and often repetitively over time, we have noted several recurrent findings:

- It is rare for anyone to be born obese. In 2000 adult obese patients, only one individual was born overweight, at 14 lb (6 kg), to a 550-lb (250-kg) mother, and she was slender throughout childhood and adolescence until age 20, when she married an alcoholic and suddenly began massive weight gains, ultimately matching her mother's weight. "Born fat" is a defensive concept.
- A significant minority of our Program participants are born at subnormal weight because of prematurity.
- Obesity indeed runs in families, as does speaking the same language. It is the distribution pattern of body fat deposition that is genetically determined, not its presence.
- Major weight gain is typically abrupt, episodic, and life-event related.

- The forces underlying extreme morbid obesity are relatively easy to discern for those seeking them. They are qualitatively similar to those underlying mild overweight, though they are much harder to discern in the latter.
- The age at which weight gain first began is critically important because it allows one to inquire why it began *then*. Some patients will know and others will not want to know, but this is an essential point not to be dropped because of patient avoidance.
- Obesity commonly is beneficially protective: sexually, physically, and socially. This is an uncomfortably difficult point for many nonobese individuals to accept.
- Major weight loss may present a significant threat, usually to the person involved, but sometimes to others.
- Emotional support from others for major weight loss is uncertain.

With adequate medical monitoring, there is no biologic risk to supplemented absolute fasting. Supplemented fasting has two treatment advantages:

- When large amounts of weight are to be lost, it reduces weight quickly enough to provide positive and supportive feedback.
- By removing eating as a major coping device, we expose the underlying issues that are being treated by the psychoactive properties of food.

The main work of the Program enters personal territory that is comfortably off-limits to polite people. It is therefore difficult and demanding, though conceptually simple. Doing the work in groups is essential because of the implicit support of the group and because participants quickly learn from each other's self-observations. To the degree that counselors pose meaningful

questions to their groups, and insist on answers to the questions asked and not to some enfeebled version of their questions, they are successful. To the degree that they teach by lecturing, they fail. In actual fact, our task is to help the participants discover what they already know at some level, and then to use that discovery for their own benefit. To illustrate the process, some seemingly simple questions may be offered for our readers to try, understanding that this works best in small groups and initially will be stressful for the group leader:

1. Why (not *how*) do you think people get fat?
2. How old were you when you *first began* putting on weight? Why do you think it was then and not a few years earlier or later?
3. Sometimes people who lose a lot of weight regain it all, if not more. When that happens, why do you think it happens?
4. What are the advantages of being overweight?

Patients' answers to these questions are staggeringly counterintuitive to conventional thinking about obesity. Moreover, their answers have been consistent over the many years we have posed these questions in group sessions. For instance, answers to question 1 routinely are: "stress, depression, people leave you alone, men won't bother you." There are of course occasional escapist responses like "I just like food." In that case, the following response to the answer given for question 2 is helpful: "Really? Can you tell us why you suddenly liked food more at 22 when you first began putting on weight?" Responses to question 3 always are versions of "If you don't deal with the underlying issues, the weight will come back." About 60% of the time, someone in a group

will also propose that regain occurs because major weight loss is threatening. Answers to question 4 repeatedly fall into three categories: obesity is sexually protective; it is physically protective (eg, “throwing your weight around”); and it is socially protective—people expect less from you.

Ultimately, we were forced to recognize that patients in a supportive setting speak of things that we ourselves may find it easier not to know. This embarrassing recognition exposes the tempting opportunity that a physician or group leader has to become part of the problem by authenticating as biomedical disease that which is actually the somatic inscription of life experience onto the human body and brain. The frequent reference to “the disease of obesity” is grossly in error, diagnostically destitute, and apparently made by those with little understanding

of the antecedent lives of their patients. Obesity, like tachycardia or jaundice, is a physical sign, not a disease.

What we have learned about obesity has been more widely applicable in everyday medical practice than we would ever have contemplated. The general principles underlying the unconscious, compulsive use of food as a psychoactive agent are common to any of the addictions. We unwittingly recognized this at some level in the early years of the Program

by giving as gifts, coffee mugs bearing the inscription, “It’s hard to get enough of something that *almost* works.” The psychoactive benefits of food are profound though not curative: “Sit down and have something to eat; you’ll feel

better.” Hunger is not at issue in that saying. Whether we are talking about the next mouthful, the next drink, the next cigarette, the next sexual partner, or the next dose of whatever psychoactive chemical we might buy on the street, the concept is equally applicable: It’s hard to get enough of something that almost works.

Slowly, we have come to recognize that overeating is not the basic problem. It is an attempted solution, and people are not eager to give up their solutions, particularly at the behest of those who have no idea of what is going on. Nor is obesity the problem. Obesity is the consequence, the marker for the problem, much in the way that smoke is the marker for a house fire. Often enough, obesity is even the solution—to problems that are buried in time and further protected by shame, by secrecy, and by social taboos against exploring certain areas of human experience. A memorable response comes to mind from 1985 when a patient, going with us through a timeline of her life in which weight, age, and events were matched, told us that at age 23 she was raped and that in the subsequent year she gained 105 lb (48 kg). Looking down at the carpet, she then muttered to herself, “Overweight is overlooked, and that’s the way I need to be.” Not knowing how to respond at the time, we said nothing. A few weeks later when she had lost 35 lb (16 kg), enough to be noticeable, she abruptly disappeared for 2.5 years, quickly regaining the weight. When she attempted to rejoin the Program after that hiatus, we discovered that she had no recollection of this conversation. Prompted by this to look into the issue of amnesia, we found in a sample of 300 consecutive obesity program patients that 12%

acknowledged a history of focal amnesia, typically for the few years antecedent to the onset of weight gain. Amnesia is a high-grade marker for dissociation, which is a high-grade marker for abuse.⁷

Just as no one becomes amnesic because of good experiences, no one becomes fat out of joy. Depression is common in the Program and is a major stumbling block to weight loss. Not surprisingly, until the recent advent of pharmacologic blockers of fat absorption, every single “diet pill” save one has had potent antidepressant activity. The exception was fenfluramine, whose potent antianxiety activity was linked with the antidepressant phentermine as the first component of fen-phen. These medications can play a useful supportive role, but it should be understood that what is being treated is depression or anxiety, the consequences of antecedent life experiences, and not obesity per se. Overall, we have found and documented that the antecedent life experiences of the obese are quite different from those of the always-slender.³

Subsequent to the 20-week weight-loss phase of the Program, we have a 12-month Maintenance Phase. Initially thinking that this was necessary to teach people how to eat right, we slowly came to see that Maintenance indeed is essential, but for other reasons: to provide group support when major weight loss is threatening, usually to the person involved but sometimes to those who are close. Some of our patients regain all their weight, and others do not. The question we posed was: What are the differences between those who regain and those who do not? We have identified two major predictors of regain: a history of childhood sexual abuse and currently being married to an

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alcoholic.⁸ The latter can probably be generalized into having a significantly dysfunctional marriage, but that concept was too nebulous to study as an outcome.

Today the prevalence of obesity is rapidly increasing in children. Although our experience with obese children is quite limited, we are impressed by the number of adults who date the onset of their initial weight gain to coincide with parental loss in childhood, usually by divorce. Our most obese female patient, weighing 840 lb (381 kg) at age 29, was born weighing slightly less than 2 lb (0.9 kg) and was thin until her parents divorced when she was 11 years old and she never again saw her father. By age 17, she weighed 500 lb (227 kg). This correlation with parental divorce has escaped general attention, although a search in Google Scholar using the phrase *childhood obesity divorce* quickly indicates its presence in the literature. Given the high prevalence of divorce in the US, we suspect that “McDonald’s” may be a more comfortable explanation for childhood obesity, although it obviously misrepresents mechanism as cause.

Bariatric surgery has been increasing in popularity since its initiation in 1967 by Edward Mason, the remarkable Iowa surgeon who introduced gastric bypass surgery to the US.⁹ Our own experience in the Program with bariatric surgery is biased because we see a disproportionate number of cases where “the surgery failed” and patients consequently enter the Weight Loss Program. We have found alternate explanations that are not usually considered. An unexpectedly clear insight was provided by a recent patient comment: “The antidote [sic] to bariatric surgery is Karo Syrup.” The psychological implication is

blatant; the physiologic insight is ingenious. One may not be able to chew one’s way through a lot after bariatric surgery, but the ability to ingest highly caloric liquids is unlimited. The question, of course, is: Why would a patient do that? A different take on bariatric surgery is depicted in a brief video clip of an interview with a patient available at: <http://public.me.com/vjfmddca>. These comments from patients are, once again, counterintuitive to conventional views about obesity. We have slowly learned that our average patient on the one hand wants very much to lose weight but on the other hand often has significant unconscious fear of the changes that major weight loss will bring about. In keeping with this unexpressed conflict, it is worth remembering that opposing forces are routinely present in biologic systems.

Outcomes

We have measured our Program outcomes in three categories:

- Weight loss
- Maintenance of weight lost
- Benefits of weight loss.

The average weight loss in one 20-week cycle of our program has been 62 lb (28 kg). The most anyone has ever lost in our former 26-week cycle was 157 lb (71 kg). This was a highly motivated man with a large underlying muscle mass.

Eighteen months after completion of the Program, half of our patients are keeping off 60% or more of the weight lost. These are old data and have probably improved with the revised Program, but we have not restudied the point. Instead, we have studied the differences between those who regain and those who do not.⁸ Our ability to predict regain offers the possibility for preventive treatment in advance.

The biomedical benefits of such major weight loss have been dramatic. Of 400 consecutive patients taking medication for hypertension who completed the Program, 62% were able to discontinue all medication and no longer had hypertension. Of 400 consecutive patients with hypercholesterolemia, the average starting cholesterol level was 285 mg/dL; the average cholesterol level for those completing the Program was 204 mg/dL. Most impressively, of 320 patients with Type 2 diabetes who completed the Program, 71% were able to discontinue medication and had normal fasting blood sugars. In terms of health care economics, there is a 25% reduction in physician office visits while patients are in the Program and a 40% reduction in such visits in the subsequent year. Certainly, some of this is due to a reduced disease burden, but we suspect that a significant portion is due to reduced emotional distress in patients who have been helped in supportive settings to speak of the worst secrets of their lives and have been enabled to emerge feeling still accepted as human beings.

Summary

We have had an unusual opportunity to become deeply involved in the treatment of major obesity since 1985. What we have counterintuitively learned from that experience is that obesity, though an obvious physical sign and easily measured, is not the core problem to be treated, any more than smoke is the core problem to be treated in house fires. Supplemented absolute fasting is a highly effective treatment for obesity, but only if it is combined with a meaningful program that is designed to help patients explore the psychodynamic issues that underlie overeating as a

coping device, as well as exploring the possible protective *benefits* of obesity itself. The work is difficult because it threatens social conventions and beliefs and often awakens personal ghosts in staff. This can lead to nonalignment of purpose and reminds us of Michael Balint's famous comment, "Patients see doctors because of anxiety, while doctors see patients because of disease. Therein lies the problem between the two."¹⁰ Although our work with obesity is difficult to carry out, we have nevertheless found that the work we have described can be done and that the benefits are major. ♦

Disclosure Statement

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References

1. Keys A. *Biology of human starvation*. Minneapolis: University of Minnesota Press; 1950.
2. Felitti VJ. Long-term medical consequences of incest, rape, and molestation. *South Med J* 1991 Mar;84(3):328–31.
3. Felitti VJ. Childhood sexual abuse, depression, and family dysfunction in adult obese patients: a case control study. *South Med J* 1993 Jul;86(7):732–6.
4. Felitti VJ, Anda R, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med* 1998 May;14(4):245–58.
5. Felitti VJ. The relation between adverse childhood experiences and adult health: turning gold into lead. *Perm J* 2002 Winter;6(1):44–7.
6. Felitti VJ, Anda RF. The relationship of adverse childhood experiences to adult health, well-being, social function, and healthcare. In: Lanius R, Vermetten E, Pain C, editors. *The impact of early life trauma on health and disease: the hidden epidemic*. Cambridge, UK: Cambridge University Press; in press 2010. Chapter 8.
7. Edwards V, Fivush R, Anda RF, Felitti VJ, Nordenberg DF. Autobiographical memory disturbances in childhood abuse survivors. In: Freyd JJ, DePrince AP, editors. *Trauma and cognitive science: a meeting of minds, science, and human experience*. New York: Haworth Maltreatment and Trauma Press; 2001. p 247–64.
8. Felitti VJ, Williams SA. Long-term follow-up and analysis of more than 100 patients who each lost more than 100 pounds. *Perm J* 1998;2(3):17–21.
9. Mason EE, Ito C. Gastric bypass in obesity. *Surg Clin North Am* 1967 Dec;47(6):1345–51.
10. Balint M. *The doctor, his patient, and the illness*. Rev ed. New York: International Universities Press; 1972.

The Boston Tea Party

To say that obesity is caused by merely consuming too many calories is like saying that the only cause of the American Revolution was the Boston Tea Party.

— Adelle Davis, 1904-1974, American author and nutrition pioneer