

CHAPTER TWO

* The Rise of the Adonis Complex

Roots of Male Body Obsession

The booming business at the Olympic Gym is a recent phenomenon. Thirty years ago, huge gyms like this, with thousands of members, were almost nonexistent. With rare exceptions, men of the 1950s or 1960s didn't worry about their muscularity; they didn't pour money into gym dues or protein supplements or weight machines for the basement. Similarly, male eating disorders, such as binge eating and vomiting, were almost unknown. Most men hadn't even heard of a body fat measurement, nor did they worry greatly about how much body fat they had. And for all practical purposes, there was no such thing as a "personal trainer."

But over the last three decades, the Adonis Complex has spread dramatically among boys and men, and more and more men are struggling to improve their appearance in one way or another. To get an idea of just how many men are affected by this trend, consider the findings of a landmark national survey of 548 men, published in *Psychology Today* magazine in 1997. An amazing 43 percent—nearly half—of the men in this survey reported that they were dissatisfied with their overall appearance. More than half were dissatisfied with their abdomen (63 percent) or weight (52 percent). Forty-five percent were dissatisfied with their muscle tone, and 38 percent with their chest.

These numbers have risen sharply from those in earlier surveys. As you can see on the next page, men's dissatisfaction with body appearance has nearly tripled in less than thirty years—from 15 percent in 1972 to 34 percent in 1985 to 43 percent in 1997. And dissatisfaction with nearly every individual body area has risen steadily.

Another surprising finding is that men are catching up to women. In 1997, nearly as many men as women were dissatisfied with their over-

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Rates of Body Dissatisfaction Among Men and Women in Three Sequential Surveys by *Psychology Today* Magazine

	1972 Survey %		1985 Survey %		1997 Survey %	
	Women	Men	Women	Men	Women	Men
Overall appearance	25	15	38	34	56	43
Weight	48	35	55	41	66	52
Height	13	13	17	20	16	16
Muscle tone	30	25	45	32	57	45
Breasts/chest	26	18	32	28	34	38
Abdomen	50	36	57	50	71	63
Hips/upper thighs	49	12	50	21	61	29

all appearance. The same is true for most specific body areas. In dissatisfaction with chest and breasts, men even outnumbered women!

You might expect body image dissatisfaction to be more common in men of certain ages—for example, during the awkward teenage years, when physical appearance becomes so important, or perhaps later in life, as men start losing their hair and muscle tone. But this doesn't appear to be the case. The *Psychology Today* survey found that a surprisingly high percentage of men of *all* ages were unhappy with their looks—from eighth-graders to thirty-somethings to men approaching sixty.

Dissatisfaction with Overall Appearance for Men of Different Ages in the 1997 *Psychology Today* Survey

Age	% Dissatisfied
13-19	41
20-29	38
30-39	48
40-49	43
50-59	48

Other findings from this survey strikingly convey just how dissatisfied—even desperate—many boys and men have become about their appearance, and what they'd be willing to do to improve their looks. For example, in response to the question "How many years of your life would you trade to achieve your weight goals?" *17 percent of men said they would give up more than three years of their lives. Eleven percent would sacrifice five years.* These numbers, by the way, closely approach the numbers obtained in women. In addition,

- 30 percent of men said they smoke to control their weight.
- 58 percent of men reported having dieted to lose weight.
- 4 percent of men said they make themselves vomit to control their weight.
- 40 percent of men said that at least half of their workout time is spent exercising to control their weight.

In light of figures like these, it's no wonder so many boys and men are working out at the Olympic Gym. Many want to lose weight; others want to bulk up, and some are so desperate to accomplish these goals that they would give up years of their life in return.

NOT JUST A WOMEN'S PROBLEM

These figures also bring out another important point. Until recently, it's been widely assumed that body image preoccupation, dissatisfaction, and distortion afflict primarily women. But over the past decade it's becoming obvious from many studies that these are big issues for men, too. Men spend a surprisingly large amount of time thinking about their appearance. In a study of undergraduate students, Marci McCauley and her colleagues found that 52 percent of men reported thinking about their weight or appearance "all the time" or "frequently." Even when the researchers restricted their analysis to men of normal weight, the proportion answering "all the time" or "frequently" was still 46 percent. Similarly, in a nationwide survey published in 1986, examining 2,000 respondents, only 18 percent of men said that they had little concern about their appearance or did little to improve it. In fact, one study found that men are even more likely than women to want to look attractive to the opposite sex. And a recent poll found that body discontent is also surprisingly widespread in other countries: 47 percent of Venezuelan men, for example, said that they constantly think about their looks.

Not only do men spend a lot of time thinking about their appearance, but many are dissatisfied with it and upset about it. We've already mentioned the *Psychology Today* survey results demonstrating this; many other studies show the same. For example, body image experts Marc Mishkind, Judith Rodin, and their colleagues found that 95 percent of college-age men expressed dissatisfaction with some part of their bodies! Men consistently express the greatest dissatisfaction with their chest, weight, and waist, but they're also often unhappy with other body areas. Older men are particularly dissatisfied with their facial features.

Recent studies have also found that a majority of men would like to change their weight in one direction or the other. When asked what type of physique they would like, the overwhelming majority of men say they would like to be well built and muscular as opposed to either thin or fat. This same preference is also expressed even by boys as young as age five or six. Several studies found that men specifically prefer a highly muscular "muscleman" type of body, characterized by well-developed chest and arm muscles, with wide shoulders tapering down to a narrow waist. Our own research studies, as we'll describe in the next chapter, have strongly confirmed these trends.

Women are often believed to be much more frequently dissatisfied with their looks than men are. But in reality, according to recent research, this perception is wrong: many men are just as unhappy, or almost as unhappy, with their appearance as women. Furthermore, men aren't just preoccupied or dissatisfied with their body image; they may also have a distorted body image, perceiving themselves as looking different (and generally worse) than they really do. There's often a vicious circle here: the more a person focuses on his body appearance, the worse he tends to feel about how he looks—obsession breeds discontent. And whether men experience outright distortions of body image or are simply dissatisfied with their bodies, they tend to have lower self-esteem and more depression than body-satisfied men. In fact, some recent studies have indicated that the connection between a bad body image and low self-esteem is even stronger among men than among women.

Why aren't these problems among men better known? We hear a lot about body image problems in women, but we rarely hear stories about men's shame or dissatisfaction with their bodies. As we mentioned in the last chapter, we think the "feeling and talking taboo" is much of the explanation. In our society, boys and men usually keep their body image concerns secret. They don't tell their friends, girlfriends, even their wives. Most men, we suspect, would be mortified to reveal how much they care about, dislike, and try to improve their looks. Instead, they suffer in silence.

THE MALE BODY-APPEARANCE MARKET

Although they say little about their concern with body image, a lot of boys and men are quietly working to do something about it. For example, in McCauley's survey of college undergraduate men, 39 percent of *normal-weight* men said they did things to increase their body weight or size "all the time" or "frequently." That statistic would be easily sup-

ported by a glance around the Olympic Gym: at any time of the day, numerous men from nearby colleges are working out. Most could use their own college gyms for free if they wanted, but they're spending about \$400 per year out of their own pockets to buy a membership at Olympic because it has better weightlifting facilities.

These men aren't the only ones spending a lot of money to improve their looks. In the last year alone, American men spent over \$2 billion on commercial gym memberships, and another \$2 billion-plus on home exercise equipment, including weight machines, treadmills, and other types of equipment—and that doesn't count the money spent on equipment for other conditioning sports. Simultaneously, the market for men's fitness magazines has exploded. The paid circulation of *Men's Health*, for example, climbed more than sixfold in only seven years, from 250,000 in 1990 to more than 1.5 million in 1997. Dozens of other health and exercise magazines for men have arisen in every niche. They range from hard-core bodybuilding publications to magazines aimed at aging baby boomers, gay men, or weekend athletes. Although these magazines may have words like "health" and "fitness" in their titles, they are often heavily focused on male body appearance. Most of these magazines didn't even exist ten or twenty years ago.

And that's still only one piece of the expanding body-appearance market. We have to add another several billion dollars that men are now spending annually for cosmetic procedures. In 1996 alone, men received 690,361 cosmetic procedures, including 217,083 hair transplantations or restorations, 65,861 chemical peels, 54,106 liposuctions, and 28,289 treatments to remove varicose veins, not to mention eyelid surgery, nose reshaping, breast reduction, face-lifts, antiwrinkle injections, calf implants, pectoral (chest) implants, buttock implants, and penis augmentations. Growing numbers of men are even having botulinum toxin injected into their faces to smooth out wrinkles; in larger quantities, botulinum is one of nature's most deadly poisons. Advertising for cosmetic surgery is increasingly targeted at men, and the proportion of men receiving cosmetic surgery procedures has increased steadily over the last decade. The number of men receiving liposuction has at least quadrupled since 1990, and a growing number of men are undergoing a new type of liposuction procedure that defines the abdominal muscles by removing the fat around them.

In 1997, the international market analyst Euromonitor estimated that men in the United States spent a shocking \$3.5 billion on men's toiletries (hair color, skin moisturizers, tooth whiteners, etc.). And a 1996 survey in *Men's Health* found that approximately 20 percent of Ameri-

can men get manicures or pedicures, 18 percent use skin treatments such as masks or mudpacks, and 10 percent get professional facials. Another survey found that "6% of men nationwide actually use traditionally female products, such as bronzers and foundation to create the illusion of a youthful appearance." One company has even started marketing men's nail polish, with such studly names as Gigolo and Testosterone.

Then we have to add in the billions spent on nutritional supplements that claim to build muscle or burn fat. A huge industry now hawks protein products, amino acids, "fat burners," vitamin combinations, minerals, and other, more exotic substances—many of them worthless and some downright dangerous—to millions of gullible American boys and men who hope to become leaner and more muscular. Thirty years ago, the supplement industry hardly existed.

What has happened? Why are men so much more insecure about their bodies than they were a generation ago?

THE 'ROIDED BODY: MALE HORMONES IN OVERDOSE

Many biological, psychological, and sociocultural forces contribute to men's body image concerns. Some of these forces, such as traditional cultural standards of "masculinity," have long existed throughout many societies. But two recent changes, we would argue, have powerfully altered the forces affecting the present generation of men. The first was the discovery of a chemical that could make men bigger than they had ever been for the last million years.

The story of anabolic steroids begins almost a century ago, when scientists began to hypothesize that some substance, presumably secreted by the testicles, conferred maleness on men and animals. Indeed, as early as the late nineteenth century, a French doctor named Charles-Édouard Brown-Séquard injected himself with an extract from fresh guinea pig and dog testicles, and was convinced that it gave him strength and vitality. It turns out, in retrospect, that there were no active hormones in Brown-Séquard's potion at all, but scientists eventually realized his ideal. By the 1930s, German scientists had discovered testosterone, the primary male hormone, and soon thereafter they began to create synthetic "analogs" of testosterone—drugs that represented small chemical variations from the original testosterone molecule. This family of drugs is known as the "anabolic-androgenic steroids."

It didn't take long to find out what these drugs could do. Even in the early 1940s, it is said, Hitler's troops were given steroids to make

them stronger and more aggressive in battle. No written records of this experiment appear to have survived, but we do possess an abundant scientific literature from the same time period: physicians began to give testosterone to middle-aged men, thinking that it might reverse the "male menopause" in men suffering from depression, or lacking energy or sex drive. The drug clearly had antidepressant effects in some of these men. But as more effective antidepressant treatments became available, testosterone lost favor.

It wasn't until the 1950s that the real potential of anabolic steroids—their muscle-building ability—was recognized. It started with the Russians, who appeared at the weightlifting championships in Vienna in 1954 with some of the first steroid-doped athletes. Quickly thereafter, elite athletes all over the world began to jump on the bandwagon—and a number of shrewd businessmen realized that with steroid-using athletes, they could make a lot of money. Steroids rippled through the bodybuilding world and soon found their way into other sports that required size and strength, like football, field events, and many more. By the 1970s, steroids had become entrenched in the bodybuilding world. Our research suggests that, over the years, competition bodybuilders grew bigger and bigger because they steadily upped their doses to stay on top. Increasingly, images of their inflated shoulders and arms proliferated in magazines, television shows, and movies.

The public remained almost completely unaware of this silent revolution. The athletes had no desire to reveal their secret, the promoters even less so. Better to tell the public that the muscles were all a result of hard work, dedication, improved training techniques, and optimal dietary supplements. American boys and men, looking at images of progressively bigger bodies, rarely stopped to think that no human being had ever looked like this throughout history. The most muscular Greek and Roman statues, the most masculine heroes portrayed in centuries of art around the world—none approached the proportions of a modern competition bodybuilder.

Look again at the sixteenth-century painting of Adonis in Chapter 1. The master artist, Titian, no doubt intended to portray the ultimate male body. Yet Titian's Adonis couldn't even win a two-bit bodybuilding contest today. There's good reason for this: prior to the steroid era, no artist had ever seen a man with the muscle size and definition of a modern steroid user. No such man ever existed—until the modern discovery of drugs that could shatter nature's longstanding physiological limits.

At first, the images of a few inflated bodybuilders didn't inflict any

major psychological damage on American men. But by the 1980s, the steroid-stoked body had found its way into Hollywood, and young men and boys began to see movies of male heroes with bodies larger than nature. Some of these movie viewers started going to the gym, naively thinking that with enough hard work and dedication they could look the same.

By the late 1980s, the deception and secrecy surrounding steroids began to crack. Ben Johnson got busted for using them in the 1988 Seoul Olympics and forfeited his gold medal. The Berlin Wall fell the next year, and the rampant steroid use of Eastern bloc athletes was exposed. Scientific studies, including some of the early studies from our own laboratory, began to capture the attention of the media. Survey data started to pour in: a 1988 study found that more than 6 percent of high school boys admitted having used steroids at some time before age eighteen. Other studies produced similar numbers—and in many of these studies, a large portion of the boys and men admitted that they used steroids purely to improve their appearance, and not for any athletic purposes at all.

Meanwhile, the "roided" body began to infiltrate the media. Male models in ads for everything from underwear to sport utility vehicles began to sport washboard abdominal muscles, massive chests, and inflated shoulders. Dozens of new fitness magazines appeared, often featuring bodybuilders on their covers and in their advertisements. Many of these bodybuilder models displayed a combination of muscularity and leanness probably achievable only with drugs. Male actors in TV commercials and soaps, fitness programs and rock videos, began to show up with similar features. Millions of American boys and men saw these images. Often, they didn't know that many of these models secretly relied on drugs. For years, some of them have told us, they wondered why they couldn't look like the men in the pictures, no matter how hard they worked out at the gym. No wonder they felt insecure.

Does this all sound too cynical? Before we go on, let's digress for a moment to provide a little hard data on the difference between a drug-free and a drug-spiked body. You can skip the technical parts of the next section if you want, but you should at least look carefully at the photos on the following pages.

VIOLATING MOTHER NATURE'S LIMITS

We often give talks about our research on steroids and body image. Sometimes, even after the talk is over, someone will look at a picture of a huge bodybuilder and still ask, "But do you think *he* used steroids?"

In response, we're almost tempted to say, "Do you think that World War II actually happened, or was it just made up by the history books?" It's astonishing how little the public has been told about the effects of steroids on body build and muscularity.

Our research has persuaded us that the male body simply cannot exceed a certain level of muscularity without the help of steroids or other chemicals. We have demonstrated this phenomenon using a mathematical formula that we have published. The formula uses a man's height, weight, and approximate percentage of body fat to calculate a number called the "fat-free mass index," or FFMI. For the reader interested in the technical details, we've provided in Appendix I a complete explanation of the formula, showing how to calculate your own or somebody else's FFMI.

The FFMI is simply a number that indicates a man's degree of muscularity. A man with an FFMI of 16 to 17 has a very low level of muscle; he's someone who might be described as "frail" or "flabby." An FFMI of 19 to 20, by contrast, would be typical of an average American or European college student. When we get up to an FFMI of 22 to 23, we're describing a man who would be noticeably muscular. We believe that an FFMI of 25 to 26 represents the upper limit of muscularity attainable without steroids. In our research, dozens of drug-free weightlifters have scored in the high 24s or even the low 25s, but above that there was a sharp cutoff: of the unequivocally drug-free men we've measured, none has scored beyond 26.

By contrast, we've measured countless steroid users who scored well above 26, with many going even into the low 30s. Steroids allow a man to break through his normal biological "ceiling" of muscularity and to soar into a range far beyond what Mother Nature ever intended. And it seems that the more drugs he's prepared to take, the farther beyond that ceiling he can go.

We should add one precaution: all of the above numbers apply to men who have low or moderate body fat. If a man becomes quite fat, then he can get his FFMI above 26 without drugs, because when you add fat to the body, you increase the amount of muscle that can be added as well. Thus, a fat Olympic powerlifter or a Japanese sumo wrestler might come out well above 26 using our formula. But on the basis of our research, we believe that it's impossible to be extremely muscular and lean without chemical assistance.

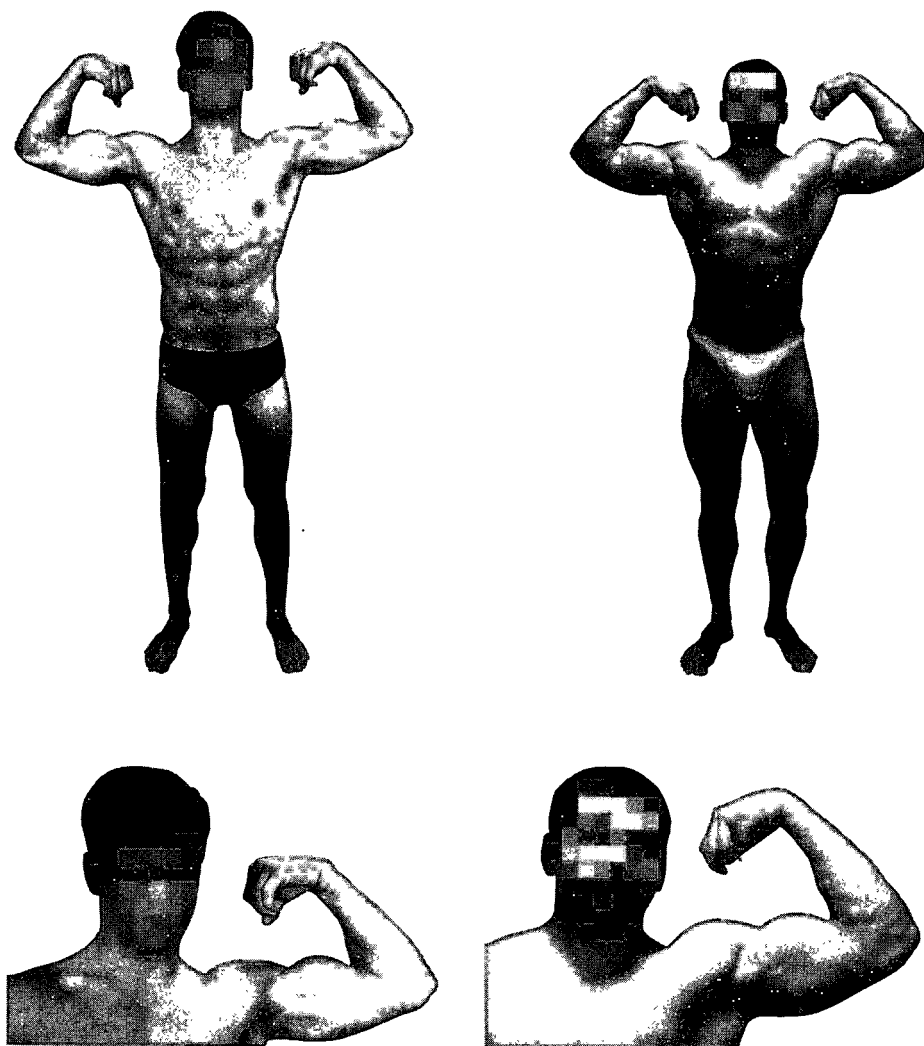
In short, we believe that if a man is fairly lean, has an FFMI greater than about 26, and claims that he has achieved this physical condition

without the use of drugs, he is almost certainly lying. If all American men and boys understood this simple fact, they might breathe a huge sigh of relief. They would realize that many of the men in pictures and advertisements—these seemingly fit and athletic role models whom they can never seem to equal—couldn't have gotten that way without drugs.

CLUES THAT A MAN HAS TAKEN STEROIDS

To see what these numbers mean, let's take a look at some pictures. On the next page, we see pictures of two men of identical height (5 feet 7 inches each), similar age (about twenty), and both quite lean (about 4.5 percent body fat for the man on the left and 7 percent for the man on the right—as compared to about 15–20 percent for an average American man of this age). The man on the left in each picture has never taken steroids; he has a fat-free mass index of approximately 23.7, a little below the upper limit of muscularity that we believe can be attained by natural means. On the right is a man who has used massive doses of steroids over several years. His fat-free mass index is approximately 31.7—a figure far beyond the limit that we believe can be attained without drugs. Note that the muscles of his shoulders, chest, and upper arms (shown in the bottom photo) are particularly hypertrophied (enlarged) relative to those of the natural bodybuilder. This effect is characteristic of steroids: the drugs stimulate growth of the upper body musculature, especially the area around the shoulder, more than the rest of the body. When you think about this observation, it isn't surprising. Men have high levels of the natural steroid testosterone as compared to women—and men differ from women particularly in the muscularity of their upper bodies, especially around the shoulder. Taking high doses of steroids, therefore, makes the user look “more male than male.” This slightly disproportionate “hypermale” look alerts the eye that there's something unnatural about the figure of the man on the right.

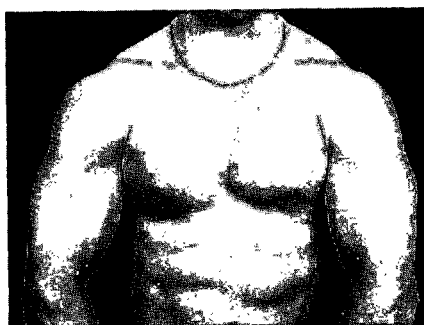
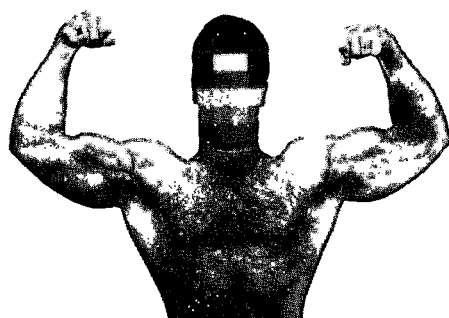
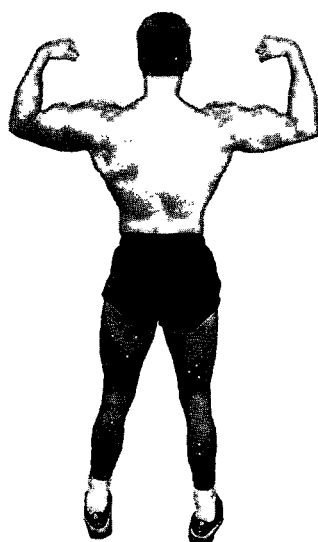
The contrast between these first two bodybuilders is pretty obvious, but on page 38 we see three more subtle examples of steroid use that an untrained observer might not recognize. In fact, the picture could almost be titled “Clues that your son (or your boyfriend or your husband) may be secretly taking steroids.” The man in the upper picture has an FFMI of only about 23, and the two men on the bottom each have an FFMI of about 25. In theory, therefore, all three fall into the range of muscularity attainable without drugs. But note that all of the men display a disproportionate amount of muscularity in the shoulders and upper arms—the same “more male than male” look that we noted in the



The effects of steroids. Top and Bottom: On the left, a steroid-free bodybuilder; on the right, a steroid user.

steroid user in the previous picture. Contrast the shoulders and upper arms of these men with those of the drug-free weightlifter on the left. The drug-free man is quite muscular, but he's muscular in a more proportional and natural way. By comparing the pictures, you may learn to recognize possible steroid use even in some men with an FFMI of less than 25.

The set of photographs on page 39 shows another, similar comparison. Steve Reeves is one of the greatest (some would say the single great-



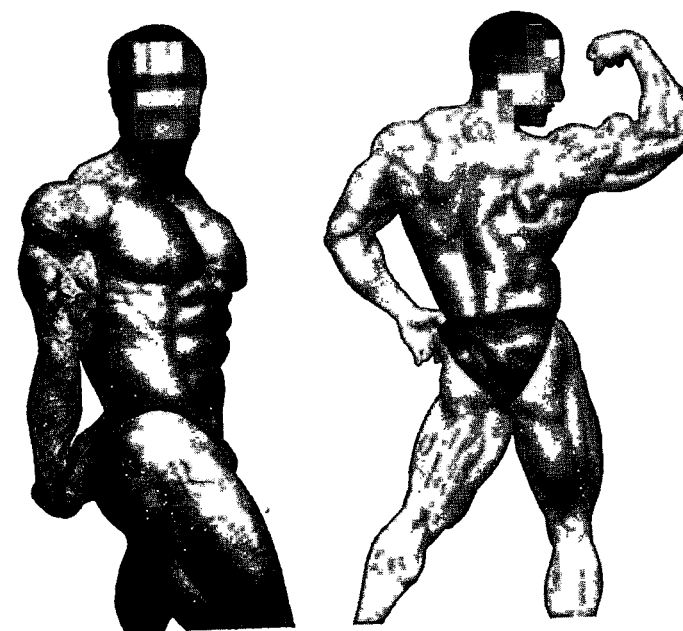
Clues that your son or your boyfriend may be secretly taking steroids.

est) bodybuilder of the presteroid era, winner of the Mr. America contest in 1947 and the Mr. Universe contest in 1950. At the time he won the Mr. America title, Steve had a fat-free mass index of approximately 25.7—another good illustration of the upper limit of muscularity that we believe can be attained without drugs. In the bottom two photographs, by comparison, are two 1999 bodybuilding competitors. The effects of drugs are obvious: they're much bigger than Steve, and both have that oddly disproportionate drug-induced look that we mentioned above.

As these pictures illustrate, the discovery of steroids has allowed today's men to violate Mother Nature's longstanding limits. As a result, the 'roided, bigger-than-life male body has infiltrated the media and our societal ideals, completely changing the messages that boys and men receive about their bodies. In fact, as we'll show in the next several photographs, kids start getting these messages in the first years of childhood.



Steve Reeves, Mr. America contest 1947, Chicago.



Two modern steroid-using bodybuilders.

G.I. JOE GOES ON STEROIDS

Many of children's earliest messages about body image come from the dolls they play with. As you may have heard, studies of the popular girls' doll Barbie show that she has become thinner and thinner over the years. In fact, one study found that if Barbie were the height of an actual woman, she'd have only a 16-inch waist! As a result, scientists have speculated, little girls get the message that thin is beautiful, and this message may have contributed to the rise of eating disorders—anorexia nervosa and bulimia nervosa—in modern times.

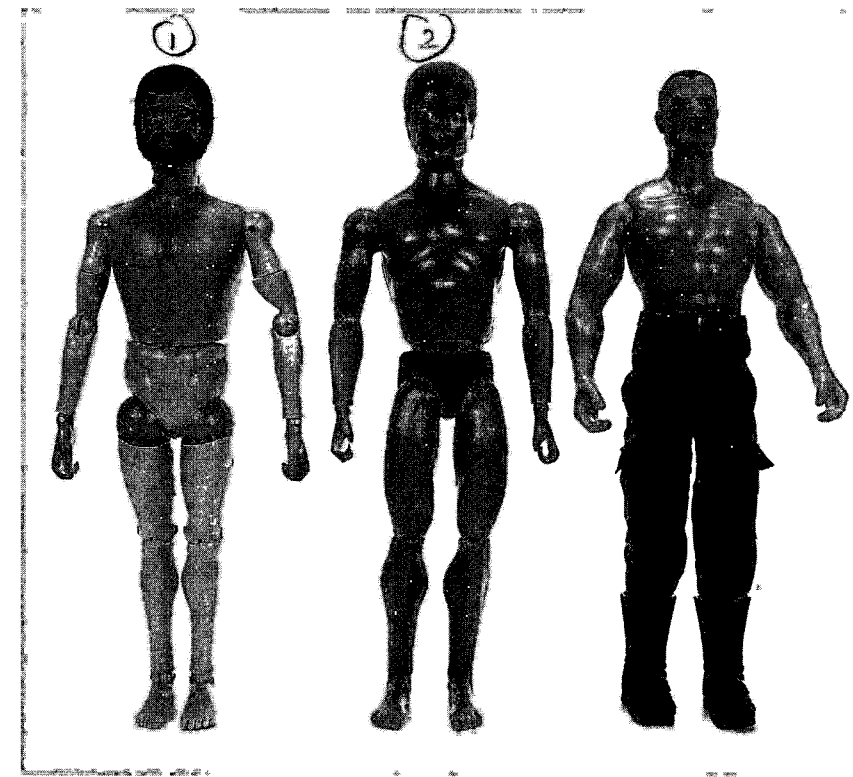
We began to wonder if there was a male equivalent of this. What about the little plastic soldiers—so-called action toys—that young boys play with? As Barbie has been growing thinner, has G.I. Joe been growing muscles? What has happened to Superman's biceps or Batman's chest over the years? To study this, we contacted many collectors of vintage action toys, and soon became experts on the evolution of these little plastic heroes.

G.I. Joe is undoubtedly the most famous and longest-running of American action toys. He has appeared in two different versions. One version was the large 11½-inch-sized series of figures who came dressed as soldiers, sailors, air force pilots, and marines. These were manufactured starting in 1964, and continued until about 1980, when they were replaced with a new collection of smaller 3¾-inch figures that first hit the shelves of toy stores in 1982. The little Joes went through many different series, with new characters added as the years went by—the Cobra Soldier, the Nemesis Enforcer, the Fridge, etc. Then, in 1991, the big 11½-inch Joes were reintroduced, and both sizes are sold today.

No other action toy has had such a long and continuous history as G.I. Joe, but there are lots of both vintage and modern figures of other types on the market: the *Star Wars* and *Star Trek* figures, Superman, Batman, and others. To select among these, we examined the annual sales surveys in *Playthings* magazine, an industry publication in the field, to find out which toys had been among the top-selling product lines over the last two decades. We quickly became avid action toy collectors. Through mail order, we purchased early examples of G.I. Joe and *Star Wars* figures from the sixties and seventies. Then we went off to the local Toys R Us, found the nearest seven-year-old boy, and asked him to tell us which toys would be his top choices for Christmas. He led us down the aisles, pointing out, "This one!" and "That one!" We bought them all for our collection.

Soon, our laboratory began to fill up with an army of plastic men. G.I. Joes from various eras stood at attention in a row on the desk. The little 1978 versions of Luke Skywalker and Han Solo perched on the windowsill, side by side with their much beefier modern counterparts. Batman, the Avenger, and the Wolverine menacingly confronted visitors from their observation post on top of the computer. Men arriving at the laboratory for our studies must have wondered if someone was beginning to go through a second childhood.

The pictures on the next pages document the changes that have taken place over the last thirty years. In the first picture, we see a chronological sequence of the big 11½-inch G.I. Joes. On the left, we have a G.I. Joe Land Adventurer with the original body style introduced in 1964. If he were a man 5 feet ten 10 inches tall, he would have a 32-inch waist, a 44-inch chest, and a 12-inch bicep—a perfectly respectable physique, similar to that of an ordinary man in reasonably good physical shape. In the middle picture, we see the G.I. Joe Land Adventurer

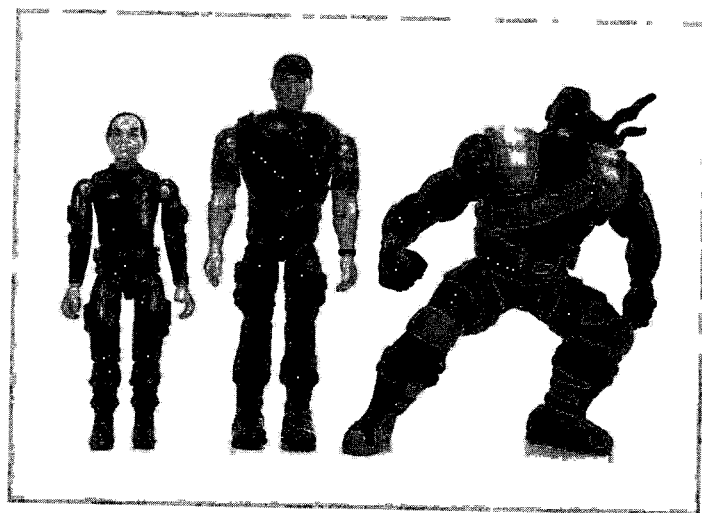


The evolution of G.I. Joe.

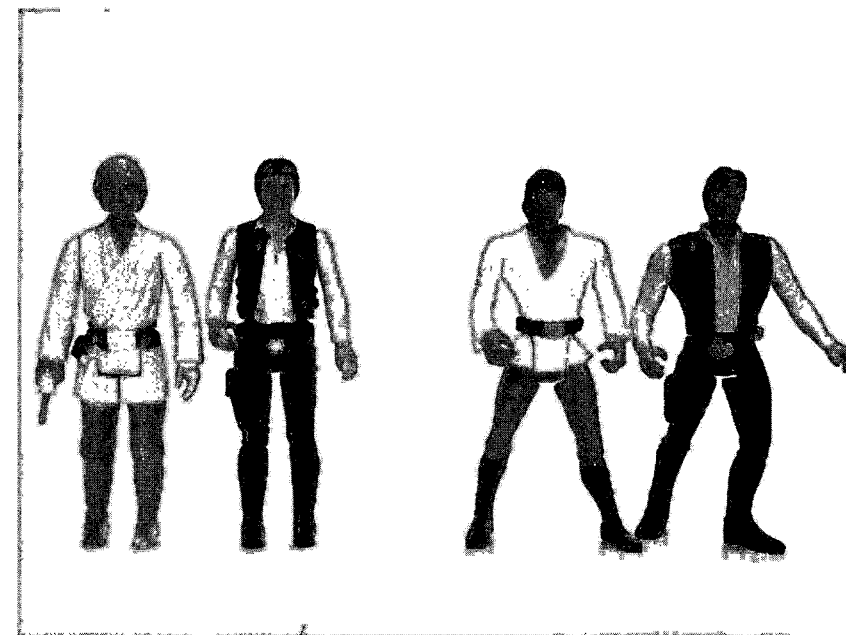
with the new body style introduced ten years later in 1974. Unlike his earlier counterpart, this G.I. Joe has been putting in a little time at the gym. His bicep has grown to the equivalent of 15 inches—already 2 or 3 inches bigger than the bicep of an average untrained man. And Joe has been doing situps, too. His abdominal muscles, hardly visible in his predecessor, are now nicely defined. But both of the earlier Joes are shamed by the contemporary figure on the right, introduced in 1991, known as the Salute to G.I. Joe. His waist has shrunk to only 29 inches, and his biceps are up to 16½ inches—approaching the limits of what a lean man might be able to attain without steroids. Not only that, but Joe now has a six-pack of abdominals that would be the envy of even many bodybuilders. And he even has visible serratus muscles—the comblike muscles that run along the ribs on the sides of his body.

We also have a collection of the smaller series of G.I. Joe figures. As shown below, the evolution here is even more dramatic. On the left, we have the cute little original 1982 G.I. Joe Grunt. His 1992 equivalent, in the middle, is already visibly more muscular. But both of these are dwarfed by the figure on the right, the G.I. Joe Extreme, introduced in the mid-1990s. If G.I. Joe Extreme were full-sized, he would have a 55-inch chest and a 27-inch bicep. His bicep, in other words, is almost as big as his waist—and bigger than that of most competition bodybuilders.

The evolution of G.I. Joe is only one example of the increasing muscularity of action figures over the years. You'll probably recognize two favorite characters from *Star Wars*, Luke Skywalker and Han Solo.



The evolution of G.I. Joe, continued.



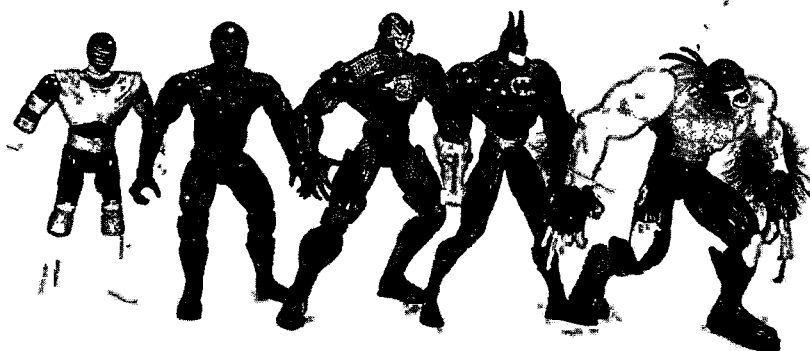
Star Wars figures, then and now.

On the left are their original versions, released by the Kenner Toy Company at the time of the original *Star Wars* movie in 1978. On the right are the two new versions from the mid-1990s, at the time when *Star Wars* was rereleased. Both have now acquired the physiques of bodybuilders, with bulging "pecs" (chest muscles) and "delt" (shoulders). Indeed, we remember one toy dealer who told us a story, perhaps apocryphal, about Mark Hamill, who played Luke in the original 1978 movie. Upon picking up the 1995 plastic rendition of himself, Hamill is said to have exclaimed, "Good God, they've put me on steroids!"

If you're still not convinced, the picture on page 44 shows some of the other male action figures that have topped the sales charts recently—the Gold Ranger, Ahmed Johnson, Iron Man, Batman, and the Wolverine. All have physiques suggestive of steroid-using bodybuilders. And some—like the Wolverine—exceed even the outer limits of what drugs can do. If he were 5 feet 10 inches tall, the Wolverine would sport a 32-inch bicep—only an inch smaller than the circumference of his waist.

Finally, on page 45, we show a complete army of plastic action heroes, chosen at random from the toy chest of the four-year-old son of one of our research associates. The picture speaks for itself.

Certainly, these action toys suggest that the ideal male body has



Popular action toys.

evolved in only about thirty years from a normal and reasonably attainable figure, such as that of the Vietnam-era G.I. Joes, to a hugely muscular figure that we believe no man could attain without massive doses of steroids. Boys are exposed to these figures while they are still very young—long before they are old enough to form an independent opinion about what a realistic man's body should look like. Is this message having an effect on American boys as they grow up? It's hard to prove this, but consider just one statistic: each year, the sales of male action toys for American boys exceed \$1 billion.

MALE SOAP OPERAS: HULK HOGAN AND OTHER MUSCLE STARS

These messages continue as boys move into adolescence. For example, professional wrestling has grown increasingly popular among boys and teenagers. Starting in the 1980s, the World Wrestling Federation (WWF) began to sell out arenas around the country with supermuscular stars like Hulk Hogan, "Macho Man" Randy Savage, the Ultimate Warrior, Andre the Giant, and Rowdy Roddy Piper. But in early 1990, Vince McMahon, Jr., who owned the business, was indicted on counts that he acted in a conspiracy to dope his wrestlers with anabolic steroids (he was later acquitted and cleared of the charges). His biggest star, Hulk



An army of action toys.

Hogan, admitted that he had taken steroids for thirteen years; he even testified that he picked up his drugs at the WWF headquarters, along with his paycheck and his mail.

But the steroid scandal was only a brief setback for WWF. Now professional wrestling is watched by an estimated half-billion viewers worldwide each week—most of them men and boys—and it has graduated from a simple wrestling show to a veritable male soap opera. Men in their twenties can recall having started to follow wrestling as young teenagers, and they still tune in regularly to watch. Among the many large, muscular, well-chiseled bodies that enter the wrestling ring are characters who suggest that muscularity is closely linked to sexuality: the message is that muscles attract girls. One example is Sexual Chocolate, a 6-foot-11-inch, 400-pound former powerlifter who is known for the "loving" attention he gives the ladies.

Even if they don't watch professional wrestling, American teenagers are exposed to a burgeoning array of fitness and health magazines. Just like the action toys, these magazines contain many images of men with bodies that we believe could not be attained by natural means. Recently, for example, we noticed an array of magazines for sale at the checkout counter of a large department store—one of those big chain stores that sells everything from cheap clothes to household items to

auto parts. Among the thirty-five or forty magazine titles, no fewer than seven were devoted to men's fitness or bodybuilding—and five of the seven had a cover picture of a man who we strongly suspected had used steroids. Interestingly, however, three of these five men appeared only "politely 'roided"—in other words, their bodies were still within the range that might theoretically be achieved without drugs—but their combination of leanness and muscularity was a little too impressive for that to seem plausible. Of course, the unspoken implication was that these men had achieved their physiques naturally—by special workout routines, nutritional strategies, and other techniques that the reader could learn, presumably, by buying the magazine.

None of the men in the checkout line, of course, looked even remotely like the models on the magazine covers confronting them. How many times in a week, we wonder, did these men see an image like this, of a man with a body that they themselves could never naturally attain?

Men have been indoctrinated by such images since early childhood—through action toys, comic strips, television, and movies—long before they were old enough to stop and question whether these images were realistic or reasonable goals for a man's body. Remember, no previous generation of men has grown up being exposed to such a plethora of supermuscular images; before the drugs, they hardly existed. What happens when you violate nature's limits, and when you subject men to ideals beyond their reach? What do these constant messages do to men's feelings about their bodies? We're convinced that this phenomenon has fueled the rise of the Adonis Complex over the last several decades.

PLAYGIRL CENTERFOLDS HIT THE GYM

Up to this point, we've spoken of the increasingly muscular male body portrayed to boys and men. But what about the "ideal" male body that the media portrays to women? Has it followed the same trend? In our attempts to study this question, we recalled an earlier study of female body image from a clever group of investigators in Canada: they looked at the dimensions of all of the women in *Playboy* magazine centerfolds from 1959 to 1979, and were able to prove that the models had been growing steadily thinner over the years. The same scientists also found that Miss America Pageant contestants had grown steadily thinner over the same period, and that the winners of the pageant, in turn, were even thinner than the losers. Over the twenty years, the pageant contestants lost about 6 pounds of weight, and the pageant winners managed to shed about $7\frac{1}{2}$ pounds. The results of this study helped to confirm the widely

held impression that our society has been preaching an increasingly thin ideal body standard to women—thus perhaps contributing to the rise of eating disorders among girls and women over the last several decades.

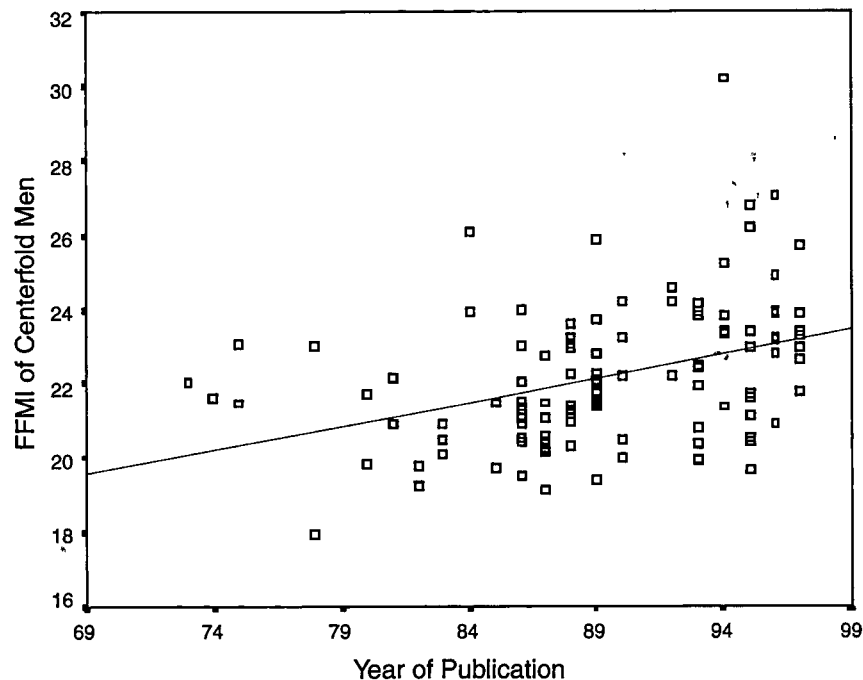
After reading the Canadian study, an ingenious young American psychology student named Richard Leit suggested to us the logical male equivalent: why not examine the dimensions of male centerfolds over the last twenty-five years in *Playgirl* magazine? As their female counterparts were growing thinner, had the *Playgirl* men been growing more muscular, as our hypothesis would predict? In other words, could we document that society is preaching an increasingly muscular ideal body standard for men—and possibly fueling an increase in the Adonis Complex?

To test our theory, we went to the Library of Congress, which carried a complete collection of *Playgirl* from its inception in 1973 to the present—carefully housed in the rare book room to secure it against thievery. As the library attendants brought up armloads of bound volumes of *Playgirl*, Richard went through them and selected all of the centerfold models whose heights and weights were quoted by the magazine. Then we estimated their body fat on the basis of their pictures, presented by Richard in random order without giving us any information to reveal which year they came from, to avoid biasing the study results. It took an entire day of grueling work just to estimate the body fat on hundreds of pictures of naked men. By that evening, when we emerged from the library onto the streets of Washington, it was almost shocking to see that all of the men on the street were clothed!

The results were just as we had predicted. The figure on page 48 shows what is known as a "scatterplot," in which each dot represents the measurements of one centerfold man. As you'll see, the average muscularity of the centerfold men, as measured by our FFMI formula described earlier, has gone steadily up—from around 20 in the mid-1970s to over 22 by the late 1990s. Putting this in more specific terms, the average *Playgirl* centerfold man has shed about 12 pounds of fat, while putting on approximately 27 pounds of muscle over the last twenty-five years! You can observe this difference for yourself on page 49, in our comparison of a *Playgirl* centerfold man from the 1970s with one from the 1990s.

WOMEN FIGHTER PILOTS AND THREATENED MASCULINITY

The *Playgirl* study brings us to our second theory about the rise of the Adonis Complex over the last generation. During this period, women have increasingly approached parity with men in many aspects of life,



A "scatterplot" showing the increasing muscularity of Playgirl magazine centerfold men, 1973-98.

leaving men with primarily their bodies as a defining source of masculinity.

This theory may sound controversial, but it rests on simple observations. First, there's nothing new about the idea that men want to be physically appealing to women or that men value bodily beauty. For example, in an excellent article, "The Beauty of the Beast," anthropologist David Gilmore demonstrates that many other eras and cultures focus on—or are even obsessed with—the male body. Many of these observations, however, are not widely known. Mr. Gilmore writes: "What is most interesting about all this is how we have managed to overlook consistent evidence that in many cultures, the appearance of the male is as important as that of the female. . . ."

One striking example comes from Africa. The Wodaabe tribe values and focuses on male beauty far more than female beauty. Men in this society are strong warriors and political leaders, but they also "primp and preen and fret over their imperfections and wrinkles." They carry pocket mirrors and combs with them at all times. They lavish large amounts of time perfecting their painted faces and magnificent hairdos.



Playgirl centerfolds, then and now. On the left, a model from the 1970s; on the right, a model from the 1990s.

The Wodaabe tribe even stages male beauty contests, with women as judges!

Many other cultures also emphasize male beauty. In some cultures, not looking right is devastating. Gilmore notes that among the Sambia of New Guinea, "a short, plain, or ugly man is an outcast. The Sambia call an ugly or puny man a 'misfit': his unhappy fate is to be rejected by women and scorned by men. The women stigmatize the homely man as a 'rubbish man' not worthy of their attention. He is shunned and humiliated daily because of his unimpressive physique."

Looking back over the centuries, we can also find abundant adoration of the male body in Western European culture. The muscularity of Greek and Roman sculpture is one obvious example. Masculine beauty was also glorified in the Middle Ages, with Christian heroes depicted as physically gorgeous specimens: tall, robust, and handsome. In Elizabethan England, men were very vain about their looks, showing off their legs in tights and wearing bejeweled codpieces—a clothing accessory designed to emphasize the genital bulge.

These preferences for certain male body characteristics, and the age-old importance of the male body in attracting a mate, are partly biologically and evolutionarily based. Considering certain body and facial characteristics to be beautiful appears to a certain extent to be innate—hard-wired into our collective brains over millions of years. Symmetrical features and smooth unblemished skin, for example, are considered universally beautiful; they seem to signify health and reproductive fitness. An example from the animal world comes from male Japanese scorpion flies: those flies with the most symmetrical wings get the most mates.

A large body size may be another example of a collective, biologically based preference. In the animal world, body size confers particular advantages, with the largest animal tending to be most dominant. Similarly, since early human times, having a large body and upper body strength would give a man many advantages, such as being better able to wield ancient weapons. It may also have given men an advantage when protecting their offspring or battling other men for a female. Echoing these earlier evolutionary advantages, a large body and broad chest may still signify survival skill and strength in today's world.

In short, male appearance has been valued in many cultures around the world for millennia. Much of this stems from the desire to dominate other men and appeal to women. But are modern men more insecure about their bodies than their Elizabethan or Roman counterparts?

We think they are, and that the evolutionary perspective is insufficient to explain this change: after all, the biological "givens" have presumably been present since the dawn of man and haven't changed in recent years. This forces us to consider other, sociocultural, explanations. We believe that some of men's more recent body image insecurities may stem from the growing equality between women and men in many aspects of daily life. As we pointed out in the previous chapter, today's women can do practically anything that a man can do: they can fly combat aircraft, work as police chiefs, operate heavy machinery, or become chief executive officers of national corporations. Women can enter formerly all-male military schools, join formerly all-male clubs, and win elective offices once held almost exclusively by men. Women have become less dependent upon men for money, power, and self-esteem. What, then, do men have left to distinguish themselves, to mark their masculinity? One of the few attributes left, one of the few grounds on which women can never match men, is muscularity. Therefore, we hypothesize that the body is growing in relative importance as a defining feature of masculinity.

Of course, it must be acknowledged that women's influence has evolved over a long time—certainly for at least a century. But even looking at the early 1900s, a time when women gained a noticeable increment of power, several authors have noted a threat to masculinity and a corresponding uptick in men's concern about their body appearance. With regard to this era, one commentator pointed out, "Masculine anxiety at the turn of the century was experienced in the accentuation of the physical and assertive side of the male ideal. . . ." This period saw the rise of "the flamboyant strongman and health enthusiast Bernarr Mac-

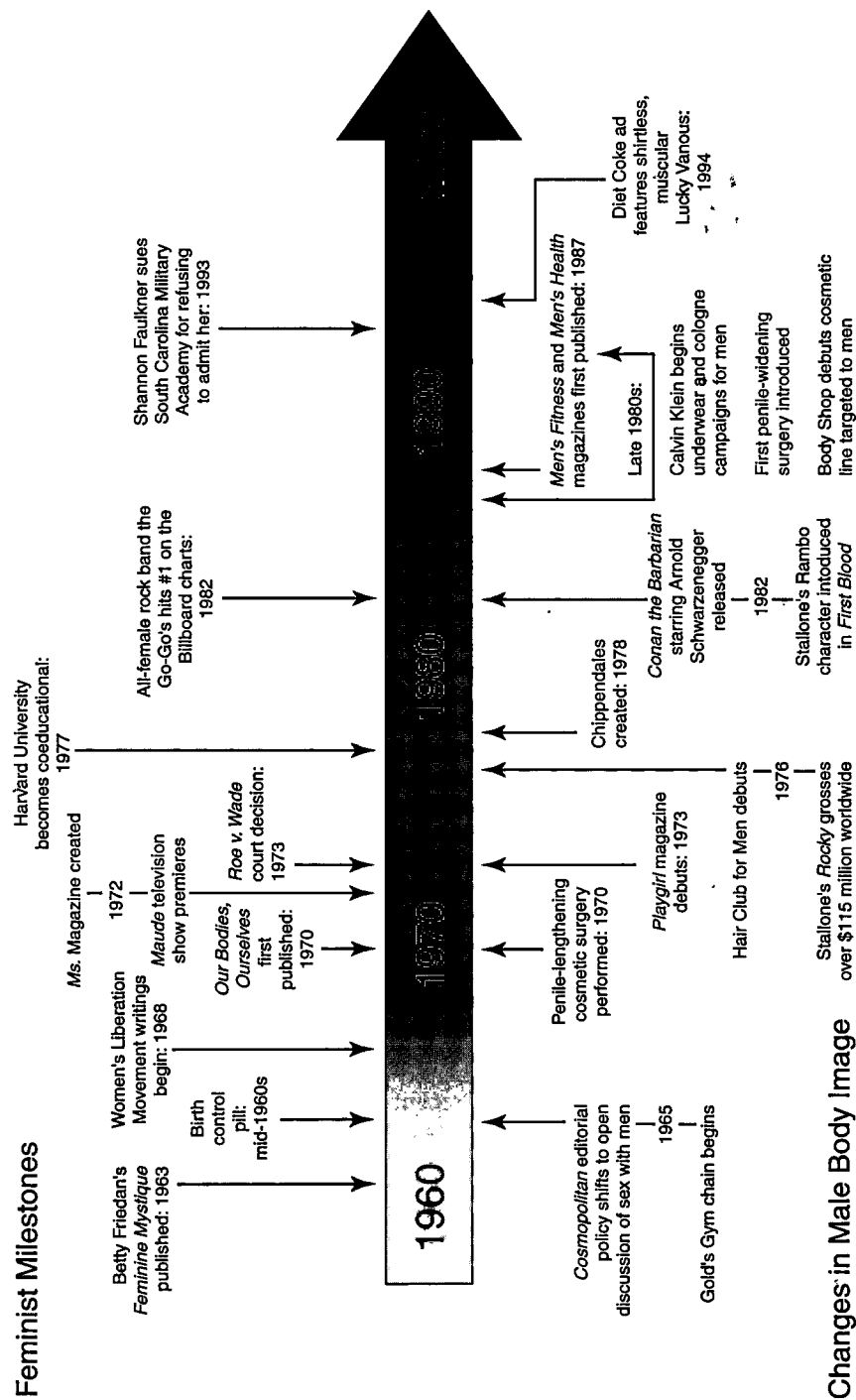
fadden," who published the magazine *Physical Culture*. Macfadden is said to have "exhorted men to realize that 'it lies with you, whether you shall be a strong virile animal . . . or a miserable little crawling worm.'"

But these small tremors at the turn of the century were modest in comparison to the seismic changes of the most recent generation. The interval from the 1960s to the 1990s has seen history's most dramatic advances for women, and in parallel, the most striking changes in cultural attitudes toward men's bodies. Our time line on the next page illustrates a few of the recent milestones achieved by feminism, side by side with events that have suggested a growing societal fixation on men's bodies during the same time period.

Looking at the time line, we acknowledge that parallels in timing do not necessarily prove a causal connection—but the thirty-odd years covered in this table have certainly witnessed some dramatic setbacks for the male ego. As women have advanced, men have gradually lost their traditional identities as breadwinners, fighters, and protectors. Women are no longer so dependent upon men for these services. Accordingly, as the importance of these other identities has declined, the relative importance of the male body appears to have increased, although men may not be consciously aware of these motivating forces.

Muscularity in particular has become increasingly important, because it symbolizes masculinity. As body image researchers Marc Mishkind, Judith Rodin, and their colleagues have stated, "We believe the muscular [body] is the ideal because it is intimately tied to cultural views of masculinity and the male sex role, which prescribes that men be powerful, strong, efficacious—even domineering and destructive. A muscular physique may serve as an embodiment of these personal characteristics." And indeed, research has shown that well-proportioned muscular men and boys are considered more masculine.

Mishkind, Rodin, and other authors, like ourselves, have similarly noted a connection between the recent rise of women and society's increasing focus on the male body. For example, authors James Gillett and Philip White have suggested that "the hypermasculine body symbolizes an attempt by men to restore feelings of masculine self-control and worth." They further hypothesize that the desirability of a "hypermasculine" body and the recent explosion of bodybuilding may be rooted in the growing "threat to male privilege" caused by the ascendancy of women. Aaron Randall and his colleagues, similarly, have written about "the dilemma posed by democratic relationships emphasizing equality between the sexes, leaving men with few sure bases for acting as pro-



Milestones of feminism and the mounting cultural emphasis on the male body over the past forty years.

TO TEST MASCULINITY

viders and protectors." Becoming strong and muscular is a clear way for men to radiate power and manliness. As Barry Glassner writes, "Muscles are the sign of masculinity."

These authors argue that in bodybuilding—the surest way to achieve muscularity—the male body symbolically represents power and strength, and represents men's attempts to reclaim feelings of masculinity. Randall and his colleagues argue that "bodybuilders embody the traditional message that muscles are the sign of masculinity." Gillett and White, similarly, discuss "the erosion of conventional notions of masculine identity." They write that "one way in which men can attempt to reclaim and reassert this conventional patriarchal version of masculinity is through the cultivation of their bodies according to some hypermasculine body image. In focusing on the body in the weight room, men are able to construct a sense of masculinity within a space commonly viewed as male, through the development and display of body images that signify strength, power, authority, and other characteristics associated with a traditional male identity."

Sociologist Michael Kimmel, similarly, has chronicled the ascent of women into traditionally masculine arenas, particularly the workplace. Men are no longer defined by their role as "breadwinners"—a term used since the early 1800s, but now fading from our vocabulary. Kimmel believes the current interest in the male body is a result of "the collapse of the workplace as an arena in which to test and prove masculinity." In another recent book, *Stiffed: The Betrayal of the American Man*, feminist author Susan Faludi has argued, through the use of rich case examples, that masculinity is in crisis as gender lines have blurred in contemporary society. Journalist Michelle Cottle, in an influential recent article, has noted that "with women growing ever more financially independent, aspiring suitors are discovering that they must bring more to the table than a well-endowed wallet if they expect to win (and keep) the fair maiden."

In the elite world of competitive bodybuilding, we may see a particularly graphic demonstration of this attempt by some men to feel more in control, more masculine, more powerful. Alan Klein, an anthropologist, has documented this "search for requisite masculinity" in the subculture of competitive bodybuilders. "If he loses size," Klein writes, "the bodybuilder feels he is less of a man in every way."

THE GROWING MARKET VALUE OF MEN'S BODIES

How can one test the hypothesis that men's bodies matter more today than they did a generation ago? A simple interview study of contemporary men and women would almost certainly generate biased answers. A more quantitative and objective test of this hypothesis would be to track the value of men's bodies in the marketplace.

Consider, for example, the expanding industry of male strippers. In the 1960s, floor shows featuring scantily clad or naked women were commonplace—as they had always been—but similar shows featuring men were rare indeed. To be sure, some gay clubs offered male strip shows, but male strip shows for female audiences were practically unheard of. The lack of male strip shows during this era cannot easily be explained on the grounds of sexual inhibitions in our culture; sexual inhibitions were certainly not a feature of the 1960s. It appears, then, that there simply wasn't much of a market for male strippers at the time. But in the 1970s, business started to pick up, and in 1978 one of the most famous male strip shows, Chippendales, was born. The show started out performing one night a week in a Los Angeles nightclub but soon acquired nightclubs of its own. By the late 1990s, the show had graduated to a major theatrical act, playing to packed houses in dozens of American cities every year and touring many European countries. Chippendales now even has its own line of merchandise and a successful licensing program. The company advertises that it “appeals to women of all ages, single and with families, with middle-class lifestyles.”

Another index of the male body's market value is commercial advertising. If men's bodies have grown proportionately more important than their roles as warriors or breadwinners, then advertisements portraying men to women audiences over recent decades would be expected to contain an increasing proportion of undressed men. For convincing evidence of this hypothesis, a study would have to demonstrate that only the proportion of undressed men had increased over the last generation, whereas the proportion of undressed women in advertisements had remained unchanged. Otherwise, it could be argued that it isn't just men's bodies, but simply all bodies, that have become more important.

To test this possibility, we examined best-selling women's magazines that met the following criteria: (1) they had been published for at least the last thirty years, and (2) they contained a large number of advertisements with male images. *Cosmopolitan* and *Glamour* were the clear first choices. We then counted, at five-year intervals, the number of men and women appearing in advertisements throughout one full year



Chippendales dancers, probably from the early 1980s.

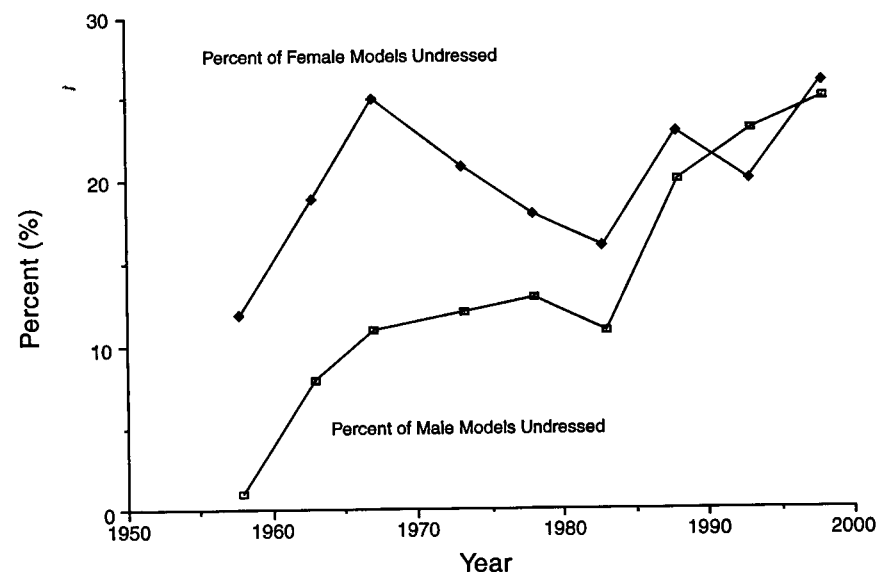
of publication, and the percentage of these men and women portrayed in a state of undress. We defined “undress” as anything too risqué to be seen on a city street. For example, a man with the top three buttons of his shirt open would still be defined as “dressed,” whereas a man wearing no shirt at all would meet our “undressed” definition.

Our predictions were confirmed. As can be seen in the two graphs on the next page, the proportion of undressed women in both magazines has remained fairly steady over the last thirty to forty years, oscillating around 20 percent. Meanwhile, the proportion of undressed men has skyrocketed, from as little as 3 percent in the 1950s to as high as 35 percent in the 1990s. What's even more interesting is that there seems to be a noticeable "inflection point": the proportion of undressed men seems to take off in the early 1980s, right in the wake of many of the feminist milestones depicted in the time line on page 52.

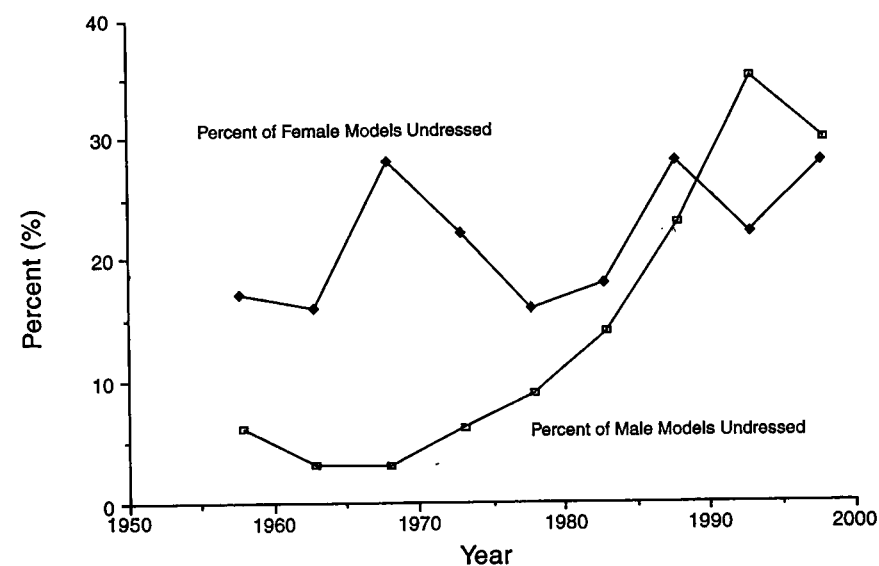
Of course, one might think of other hypotheses to explain the sudden surge of undressed men. But remember—any competing hypothesis would have to explain why the proportion of undressed men has gone up, whereas the proportion of undressed women has stayed flat. Note also that these increases can't be explained by the whims of one or two advertisers, since they represent a general trend throughout many different types of advertisements. Also keep in mind that if the advertisements hadn't sold products, they would have quickly disappeared. Advertising lives or dies by its commercial success, and as shown by the hunks on pages 58–59, the undressed men haven't been going away. In the first three pictures, male bodies are at least being used to sell body-related products, such as clothes and tanning lotion. But the remaining three advertisements use male bodies to promote products having nothing to do with bodies at all—from ironing boards to cell phones to liqueurs. And these are just a few examples—half-naked men are being used to sell countless other products, such as upscale hotels, couches, and even bank loans.

Advertisements in women's magazines aren't the only indicator of the mounting dollar value of men's bodies. As journalist Michelle Cottle has noted, a corresponding industry of men's magazines, largely focused on body appearance, has exploded over the last ten or twenty years. The paid circulation of Men's Health has risen from 250,000 to more than 1.5 million in less than a decade; its cousins, such as Men's Journal, Details, and GQ, are thriving as well. Many of the readers of these magazines are in their thirties or forties and married. In an earlier era, these readers would have been content to be respected husbands and breadwinners. But as these traditionally masculine roles have eroded, these men are now reading articles about tightening their abs, saving their hair, and fighting fat. The male body image industries that advertise in these magazines, quick to capitalize on these new insecurities, are making a killing.

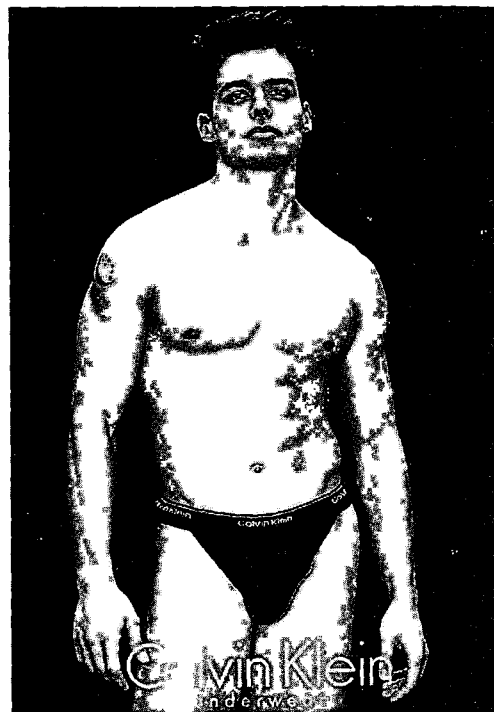
Glamour Magazine



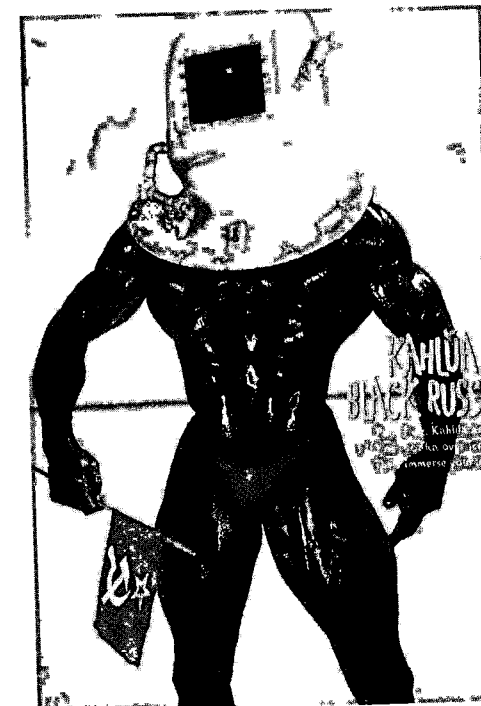
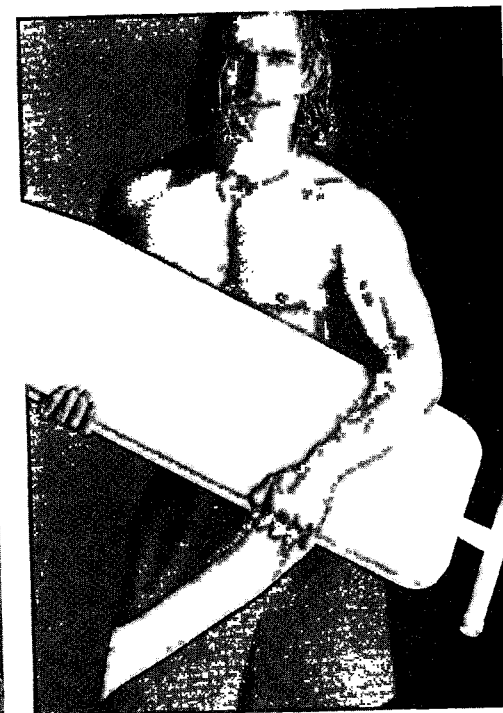
Cosmopolitan Magazine



Percentages of undressed male and female models in leading women's magazines, 1958–1998.



Recent magazine advertisements featuring male bodies.



A recent article in the *New York Times* trumpeted the headline THE CHEF AS BEEFCAKE. As the author stated, "the message was as arresting as some of the buff studs pictured, one naked except for a well-placed blender. . . . Today's top chef is a sex kitchen utensil." With messages like these infiltrating men's consciousness, it's no wonder that the Adonis Complex has become epidemic among today's men.

THE MALE BODY IMAGE CRISIS

The origins of the Adonis Complex are complicated, and include biological givens, personal experiences (such as being teased about one's appearance), and other factors. In addition, our discussion above is speculative, because it is difficult to devise experimental tests for our theories. However, research shows that sociocultural influences, such as the media, tend to make women feel worse about their bodies, and preliminary studies of these influences suggest the same is true for men. In addition, there seems little doubt that over the last generation our culture has placed a growing emphasis on male body image—as exemplified in toys, comic books, magazines, newspapers, television, the movies, and advertisements of all types. As one advertising executive stated, the male torso reigns as the decade's most powerful "cross-over image" (appealing to women, gays, and heterosexual men alike). We've presented evidence in this chapter that these unprecedented changes are most likely related to two important sociocultural factors that distinguish the present generation from every generation before it: the availability of anabolic steroids and the increasing parity of women.

Even then, the Adonis Complex could not have grown to its present proportions if men felt more comfortable in talking openly about their deepest thoughts and feelings. Because men aren't supposed to worry or complain about their looks, few would ever admit that they'd secretly like to have a steroid-sized body or that they fret about their inadequacies when examining their bodies in the mirror. Fewer still would acknowledge that their obsessions about body appearance have anything to do with threatened masculinity as a result of the growing empowerment of women. Indeed, few men have stopped to even think about the underlying forces that may be driving them to put in long hours at the gym, contort their diets and eating patterns, splurge on cosmetic procedures, or take dangerous drugs such as steroids.

Women, in contrast, have learned in recent years to be more candid about their body image concerns—and they've grown stronger in

their ability to reject societal messages that appearance is all-important. But men lag far behind in this respect; the Adonis Complex, like the forces behind it, remains in the shadows.

To penetrate this secrecy, we've devised two tests, described in the next chapter, and applied them to men of all ages in America and Europe. If you're a man, you can try these tests yourself. If you're a woman, you may want to offer these tests to a man you know. In any event, you'll likely be surprised by our findings—which document both the extent of the Adonis Complex and its mounting list of casualties.