

"Give your throat a vacation...

Smoke a

FRESH

Misuse of statistics in cigarette advertisement

If the cigarette you have been smoking stings or burns your throat, switch to Camels and see the difference.

It's the peppery dust in Camels—that's whisked away by a special vacuum-cleaning process.

There are no stale, crumbly, parched tobaccos—the fine Turkish and mild Domestic tobaccos of which Camels are blended come to you in prime, factory-fresh condition, thanks to the Humidor Pack.

This scientific germ-safe wrapping—not plain ordinary Cellophane, but moisture-

proof Cellophane which cuts nearly twice as much—seals in all the natural aroma and freshness, seals it so tightly that wet weather never gets in. Camels—damp, dry, drought or humidity—Camels are always there for you. Camels are moist and fresh—no matter how long you've kept them. Give your throat a vacation, switch to Camels for just one day. Then leave them—if you can.

You're Camels, an entire pack including Humidor Pack and Humidor Pack in Camel Humidor Pack, Humidor Pack and Humidor Pack in Camel Humidor Pack, Humidor Pack and Humidor Pack in Camel Humidor Pack.



CAMELS

Mild ... NO CIGARETTE AFTER-TASTE

From Data to Insight

Don't remove the moisture-proof wrapping from your package of Camels after you open it. The Humidor Pack is protection against heat and germs. In offices and homes, even in the dry atmosphere of artificial heat, the Humidor Pack delivers fresh Camels and keeps them right until the last one has been smoked.

Dr. Çetinkaya-Rundel
July 12, 2016

Recap

- ▶ Brandt: “there is no single gold standard of disease causality”. What is the reason behind this claim?
- ▶ Clinical observations, population studies, and laboratory experiments are thought to be the three distinct but related domains of medical knowledge. What can we conclude from each one regarding the relationship between smoking and lung cancer? How do they complement each other?
- ▶ How could you improve on Wynder & Graham’s and Doll & Hill’s studies/experiments?

Causal conundrum

In the 1950's, how did the cigarette companies respond to scientific findings showing a relationship between smoking and cancer?

- ▶ Denying the problem
- ▶ Produce and sustain scientific skepticism and controversy
 - ▶ assert that the relationship between smoking and cancer is “not proven”
 - ▶ pseudoscientific research showing some cigarettes are better than others
- ▶ Strong PR campaign emphasizing tobacco industry's commitment to scientific research

Denial

- ▶ A medical specialist is making regular bi-monthly examinations of a group of people from various walks of life. 45 percent of this group have smoked Chesterfield for an average of over ten years.
- ▶ After ten months, the medical specialist reports that he observed... *no adverse effects on the nose, throat and sinuses on the group from smoking Chesterfield.*

"Believe me, folks, you'll want to read this important new evidence on the effects of smoking. Then you'll say... **MUCH Milder** **CHESTERFIELD IS BEST FOR ME!**"
Arthur Godfrey

NOW... Scientific Evidence on Effects of Smoking!

A MEDICAL SPECIALIST is making regular bi-monthly examinations of a group of people from various walks of life. 45 percent of this group have smoked Chesterfield for an average of over ten years.

After ten months, the medical specialist reports that he observed... *no adverse effects on the nose, throat and sinuses of the group from smoking Chesterfield.*

MUCH Milder
CHESTERFIELD
IS BEST FOR YOU

First and Only Premium Quality Cigarette in Both Regular and King-Size

CHESTERFIELD CIGARETTES
KING-SIZE CIGARETTES

CONTAINS TOBACCO OF BETTER QUALITY AND HIGHER PRICE THAN ANY OTHER KING-SIZE CIGARETTE

Arthur Godfrey

Pseudoscience

- ▶ Camel cigarettes 30-Day Mildness Test
- ▶ “The test was sensible”

How MILD can a cigarette be?

ANNE JEFFREYS started her modeling to pay for her music studies. In rapid succession came personal appearances... radio and television roles... motion to more than 30 movies.

"My cigarette must be mild. I smoke CAMELS. They agree with my throat and they taste grand!"
Anne Jeffreys
STAGE AND SCREEN STAR

"I know how mild a cigarette can be! My own 30-day Camel Mildness Test gave me the proof. The test was fun and sensible! I didn't make a snap decision on just one puff or one sniff. I had plenty of time to appreciate how good tasting Camels really are! I learned for sure how welcome Camel mildness is to my throat!"

NOTED THROAT SPECIALIST REPORT ON 30-DAY TEST OF CAMEL SMOKERS...
NOT ONE SINGLE CASE OF THROAT IRRITATION due to smoking CAMELS!

Yes, there were the feelings of relief these specialists after a total of 2,470 weekly examinations of the throats of hundreds of men and women who smoked Camels—and only Camels—for 30 consecutive days.

● Doctors smoke for pleasure, too! Once again, in a repeat survey just completed by an independent research organization, doctors in every State in the Union and in every branch of medicine were asked: "What cigarette do you smoke, Doctor?" Once again, the brand named most was CAMEL!

Make your own 30-Day Camel MILDNESS Test in your T-Zone!
(T for Throat — F for Tests)

More Doctors Smoke **CAMELS** than any other cigarette

PR Campaign

- ▶ Industry sponsored research entity
 - ▶ call for new research implied that existing studies were inadequate or flawed
 - ▶ there was “more to know”
 - ▶ made the industry seem a committed participant in the scientific enterprise rather than the enemy
- ▶ Initiated collective research to demonstrate shared concern for the public instead of focusing on the health benefits of particular brands



Tobacco Industry Research Committee (1953)

What was “The Frank Statement” (1953) intended to demonstrate?

Tobacco industry is

- ▶ committed to public health,
- ▶ serious, authoritative and judicious
- ▶ eager to fulfill its responsibilities to the public

A Frank Statement to Cigarette Smokers

RECENT REPORTS on experiments with mice have given wide publicity to a theory that cigarette smoking is in some way linked with lung cancer in human beings.

Although conducted by doctors of professional standing, these experiments are not regarded as conclusive in the field of cancer research. However, we do not believe that any serious medical research, even though its results are inconclusive should be disregarded or lightly dismissed.

At the same time, we feel it is in the public interest to call attention to the fact that eminent doctors and research scientists have publicly questioned the claimed significance of these experiments.

Distinguished authorities point out:

1. That medical research of recent years indicates many possible causes of lung cancer.
2. That there is no agreement among the authorities regarding what the cause is.
3. That there is no proof that cigarette smoking is one of the causes.
4. That statistics purporting to link cigarette smoking with the disease could apply with equal force to any one of many other aspects of modern life. Indeed the validity of the statistics themselves is questioned by numerous scientists.

We accept an interest in people's health as a basic responsibility, paramount to every other consideration in our business.

We believe the products we make are not injurious to health.

We always have and always will cooperate closely with those whose task it is to safeguard the public health.

For more than 300 years tobacco has given solace, relaxation, and enjoyment to mankind. At one time or another during those years critics have held it responsible for practically every disease of the human body. One by one these charges have been abandoned for lack of evidence.

Regardless of the record of the past, the fact that cigarette smoking today should even be suspected as a cause of a serious disease is a matter of deep concern to us.

Many people have asked us what we are doing to meet the public's concern aroused by the recent reports. Here is the answer:

1. We are pledging aid and assistance to the research effort into all phases of tobacco use and health. This joint financial aid will of course be in addition to what is already being contributed by individual companies.
2. For this purpose we are establishing a joint industry group consisting initially of the undersigned. This group will be known as TOBACCO INDUSTRY RESEARCH COMMITTEE.
3. In charge of the research activities of the Committee will be a scientist of unimpeachable integrity and national repute. In addition there will be an Advisory Board of scientists disinterested in the cigarette industry. A group of distinguished men from medicine, science, and education will be invited to serve on this Board. These scientists will advise the Committee on its research activities.

This statement is being issued because we believe the people are entitled to know where we stand on this matter and what we intend to do about it.

TOBACCO INDUSTRY RESEARCH COMMITTEE

5400 EMPIRE STATE BUILDING, NEW YORK 1, N. Y.

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TOBACCO ASSOCIATES, INC.
(An organization of non-cured tobacco growers)
J. R. Hutson, President

“Smoke without fear” (1954)

- ▶ If you are a man or a woman who smokes, relax and enjoy it.
- ▶ If you have tried to give up smoking a dozen times and failed, quit trying.



“See It Now” with Edward Murrow

- ▶ Two episodes on cigarettes and lung cancer
- ▶ Interview with Dr. Little who says that no cancer-causing agents in cigarettes have been identified and therefore a causal relationship cannot be established.



Edward Murrow

"Another Frank Statement to Smokers" (1958)

ANOTHER FRANK STATEMENT TO SMOKERS

Almost five years ago, in January, 1954, the Tobacco Industry Research Committee was formed and issued a statement "pledging aid and assistance to the research effort into all phases of tobacco use and health". The intervening years have brought a stream of conflicting and confusing publicity about tobacco use, especially cigarette smoking, in relation to health. We consider it appropriate at this time to set forth the facts:

Now, as then, we do not believe that the serious medical research done in this field should be disregarded or lightly dismissed. Many of the medical profession have accepted at face value the claims, based almost completely on statistics, of a causal relationship between cigarette smoking and human disease. But a substantial number of doctors and scientists of high professional standing and repute have, after investigation, publicly challenged the validity of these broad charges against tobacco.

Distinguished authorities point out:

1. Compelling doubts have been raised about some interpretations of the statistics relating to smoking and health.

2. Laboratory and clinical findings have failed to establish the charges of a causal relationship between

smoking and lung cancer. Experiments conducted in various institutions with animals inhaling tobacco smoke have consistently failed to show any lung cancer causation from the smoke.

3. The cause or causes of lung cancer remain undetermined and a large number of possible factors, including occupational exposures, specific air pollutants, nutrition and many others, are under continuing study.

4. Definite conclusions are not warranted by the present state of knowledge about this complex disease.

For hundreds of years tobacco has given great satisfaction and pleasure to mankind. We are deeply concerned that it should now be the subject of these serious charges, even though we are firmly convinced that these charges have not been proved. Because of our concern, we have in the past several years spent \$2,700,000 [check] in independent medical research. Nearly 100 grants have been made to scientists in 50 different research institutions. These scientists have complete freedom in conducting their research and making public their results.

Of course, we have never suggested, and do not suggest now, that excessive indulgence in any of life's pleasures is beneficial to health. As in everything else moderation is the touchstone.

The cause of cancer remains today as much a mystery as ever. Until the questions now raised about tobacco are solved, the Tobacco Industry Research Committee will continue to support independent scientific research into all phases of tobacco use and health.

At its formation in January 1954 the Tobacco Industry Research Committee stated:

"We believe the products we make are not injurious to health."

"We are pledging aid and assistance to the research effort into all phases of tobacco use and health."

We reaffirm that statement and pledge today.

What made Clarence Cook Little the perfect candidate for the scientific director of the TIRC?

- ▶ Established scientist who has been working on cancer research
- ▶ Believed that cancer resided in individual's genetic lineage
- ▶ Ultraconservative about cause and effect relationships



How did researchers' opinion about smoking research evolve throughout the 1950's?

- ▶ Most started with skepticism
- ▶ Prospective studies showing a link between smoking and increasing death rates from lung cancer convinced some researchers
- ▶ Abundance of studies showing a link between smoking and lung cancer made it difficult to ignore the possibility of a causal relationship entirely

"The Great Debate" (1961)

It is enough to say that most of the evidence is statistical and demonstrates a close association between heavy cigarette smoking and lung cancer. However, it is generally believed that statistics in the hands of a master can be made to prove almost anything.

1266

THE NEW ENGLAND JOURNAL OF MEDICINE

June 15, 1961

The New England Journal of Medicine

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THE GREAT DEBATE

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Many conscientious observers believe that there are strong indications in favor of a causal relation in the vast majority of cases, and no acceptable evidence that disproves it; others remain unconvinced or have taken a determined stand behind Dr. Little. Certain facts stand out — that the stakes are high in terms of life and death, that smoking has been indicted as a sometimes lethal agent and that nonsmoking is almost certainly harmless. Each individual must choose his own course, whether to woo the lady nicotine or abjure the filthy weed, while the search for truth continues.

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"The Great Debate" (1961)

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01487

“Not One Single Case of
Throat Irritation”:

Misuse of the Image of the Otolaryngologist
in Cigarette Advertising
Samji & Jackler (2009)

Questions to consider for your writing

- ▶ What is the overall idea being presented in this paper?
- ▶ What is the main question (hypothesis) being posed in the paper?
- ▶ What methodology did the authors use to test their hypothesis?
- ▶ Does the conclusion agree with what the authors hypothesized?
- ▶ Does this article agree with previous readings?
- ▶ Do you agree with the author's conclusions?

Throat specialists

Here's what throat specialists reported about Camel Mildness—

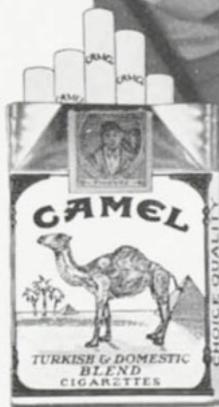


In a recent coast-to-coast test, hundreds of men and women smoked Camels—and only Camels—for 30 consecutive days. They smoked on the average of one to two packs a day. Each week throat specialists examined the throats of these smokers, a total of 2470 careful examinations, and reported

“NOT ONE SINGLE CASE OF THROAT IRRITATION due to smoking CAMELS”

Money-Back Guarantee!

Try Camels and test them as you smoke them. If, at any time, you are not convinced that Camels are the mildest cigarette you've ever smoked, return the package with the unused Camels and we will refund its full purchase price, plus postage. (Signed) R. J. Reynolds Tobacco Co., Winston-Salem, N. C.



According to a Nationwide survey:

MORE DOCTORS SMOKE CAMELS
than any other cigarette

Doctors smoke for pleasure, too! And when three leading independent research organizations asked 113,097 doctors what cigarette they smoked, the brand named most was Camel!

SCIENCE
DISCOVERED IT—
YOU CAN PROVE IT

“No Unpleasant After-taste”

—added to the world's most famous ABCs—

Always Milder
Better Tasting
Cooler Smoking

Here's the Biggest "Plus" in Cigarette History!

“CHESTERFIELD IS THE ONLY CIGARETTE of all brands tested in which members of our taste panel found no unpleasant after-taste.”

From the report of a well-known research organization

Always Buy CHESTERFIELD

Copyright 1951, LIGGETT & MYERS TOBACCO CO.

Pseudoscience

Medical authority

WHAT DISTINGUISHED DOCTORS FOUND ON COMPARING CIGARETTES

Full reports in medical journals by men high in their profession—regularly offered to physicians on request.

MANY thousands of America's physicians already possess this authoritative reference material on the leading cigarettes regularly smoked in America. For the public, findings may be summed up as follows:

LABORATORY COMPARISONS:

The four other leading brands were found to average *more than three times as irritant . . . with irritant effects lasting more than five times as long . . .* as the strikingly

contrasted PHILIP MORRIS.

CLINICAL TESTS (actual smokers)

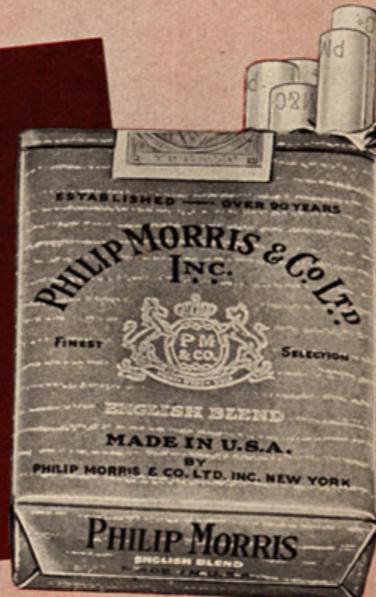
When smokers changed to PHILIP MORRIS, every case of irritation of nose or throat—due to smoking—either cleared up completely, or definitely improved.

TO PHYSICIANS: A set of reports (reprinted) available upon request. Please write on professional letterhead—addressing: Research Division, Philip Morris & Co., 119 Fifth Avenue, New York, N. Y.

Scientific proof that this finer-flavored cigarette is far less irritating—therefore safer—for the smoker's nose and throat!

CALL FOR PHILIP MORRIS

America's Finest Cigarette



Just one question, Mom...



can you afford not to smoke

Marlboro?



Yes, you need never feel over-smoked—that's the Miracle of Marlboro!



YOUR CHOICE OF IVORY TIPS • PLAIN ENDS • BEAUTY TIPS (RED) •

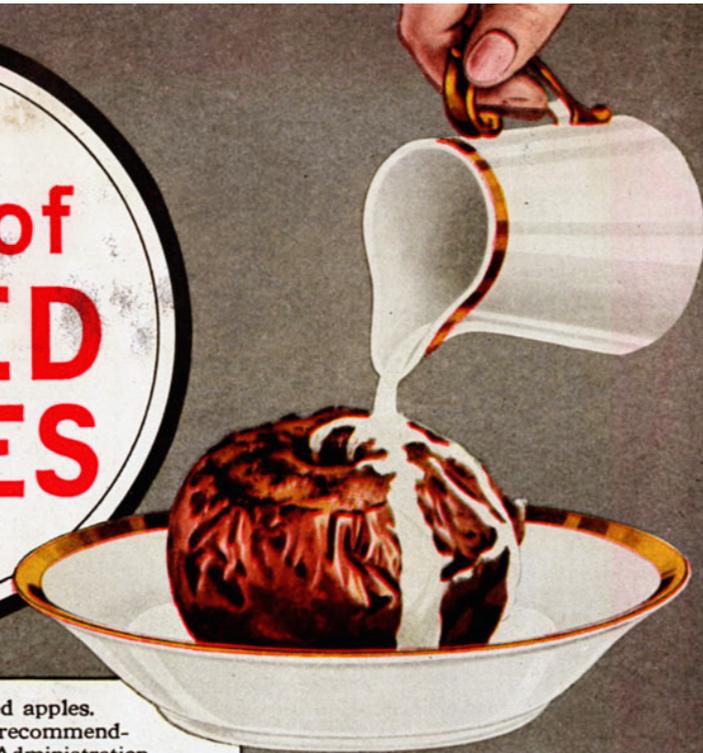
Babies?

Creation of a manufacturing myth



Toasted

Use plenty of **BAKED APPLES**



USE plenty of baked apples. Cooked fruits are recommended by the Food Administration.

How baking does bring out the delicious flavor in a baked apple—it's improved 100 per cent over the raw apple.

We use the same idea to improve the flavor of tobacco—offer it to you toasted instead of raw. Try Lucky Strike Cigarette—it's toasted.

LUCKY STRIKE CIGARETTE



Save the tin-foil from Lucky Strike Cigarettes and give it to the Red Cross

**It's
toasted**

Guaranteed by
The American Tobacco Co.
INCORPORATED

CHEESE
OK'D BY
FOOD
Administration



CHEESE O.K.'d by the Food Administration! Indeed it is: all dairy products are urged in place of other foods.

Cheese can be served in many ways as the principal dish of a meal; the familiar rarebit is only one of them.

In all of them the flavor is heightened and enriched by cooking. The same applies to tobacco—flavor is much improved by cooking. Try Lucky Strike Cigarette—it's toasted.

LUCKY STRIKE CIGARETTE



Save the tin-foil from Lucky Strike Cigarettes and give it to the Red Cross

20
for
15c

**It's
toasted**

Guaranteed by
The American Tobacco Co.
INCORPORATED

Fresh, not toasted

NATURALLY *FRESH* never parched, never toasted!

The cool, flavorful *freshness* of Camel cigarettes is purely a natural product.

It is attained not by any mysterious processes, but simply by preserving the full natural goodness of fine sun-ripened tobaccos.

These choice tobaccos of which Camels are blended—fine Turkish and mild Domestic tobaccos—are never parched or toasted.

On the contrary we exercise every care and pre-

caution to safeguard the natural moisture which is infused with their mildness and flavor.

That's why the Camel Humidor Pack is such a boon to Camel smokers—it could do little or nothing except for the fact that the cigarettes we put into it are fresh to start with.

To see what that means in cool, smooth, throat-friendly smoking pleasure, switch to *fresh* Camels for just one day—then leave them, if you can!

R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C.

R. J. Reynolds Tobacco Company's Coast-to-Coast Radio Programs

CAMEL QUARTER HOUR, Morton Downey, Tony Wons, and Camel Orchestra, direction Jacques Renard, every night except Sunday, Columbia Broadcasting System
PRINCE ALBERT QUARTER HOUR, Alice Joy, "Old Hunch," and Prince Albert Orchestra, direction Paul Van Loan, every night except Sunday, N. B. C. Red Network
See radio page of local newspaper for time



© 1932, R. J. Reynolds Tobacco Company

Don't remove the moisture-proof wrapping from your package of Camels after you open it. The Camel Humidor Pack is protection against perfume and powder odors, dust and germs. In offices and homes, even in the dry atmosphere of artificial heat, the Camel Humidor Pack delivers fresh Camels and keeps them right until the last one has been smoked

CAMELS

Made FRESH — Kept FRESH

Freshness

the flowers that bloom in the Spring...



bring
Apple "Honey"
to
Old Golds

Soon the blossoms bring juicy apples . . . and their nectar brings Apple "Honey" . . . and Apple "Honey" brings freshness to Old Golds!
How? By helping to keep in the natural moisture of Old Gold's fine tobaccos—to which "something new has been added"—imported Latakia tobacco for richer flavor!
Try Old Golds . . . and see why they have 3 times as many friends as they had 3 years ago!

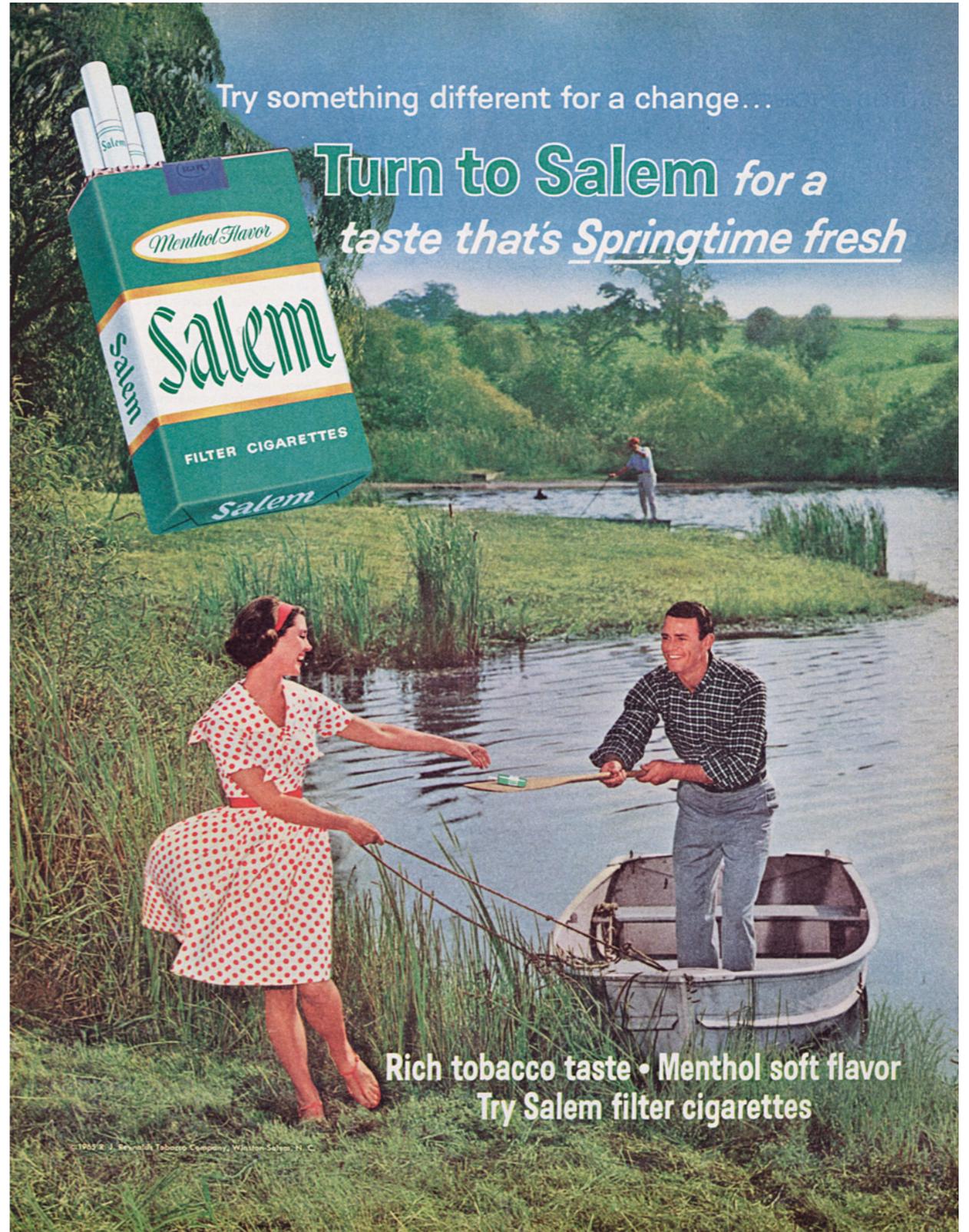


Buy more War Bonds than you think you can afford!
LISTEN TO: Sammy Kaye's Band and Guests, Wednesday Evenings, CBS Network; also Bob Crosby and his Orchestra, Sunday Evenings, NBC Network.

Try something different for a change...



Turn to Salem for a
taste that's Springtime fresh



Rich tobacco taste • Menthol soft flavor
Try Salem filter cigarettes

Involvement of physicians on tobacco ads

- ▶ Why were they involved?
 - ▶ There was not definitive and accepted literature linking cigarette smoking to illness.
 - ▶ Prevalence of smoking among physicians was high.
- ▶ Other than false claims of safety, what other impact did the use of medical authority and imagery in tobacco advertising have?
 - ▶ Lower likelihood of antismoking messages being communicated in private clinical settings.

Reader's Digest
"Cancer by the Carton"

1952

FTC banned references to physicians and medical terms from tobacco ads

Surgeon General's report on smoking and its health effects

1955

1964

1950

Wynder & Graham study published

1958

Gallup Poll: 44% of Americans believe smoking causes cancer

1954

Doll & Hill study preliminary results published
Hammond & Horn study published

1968

Gallup Poll: 78% of Americans believe smoking causes cancer

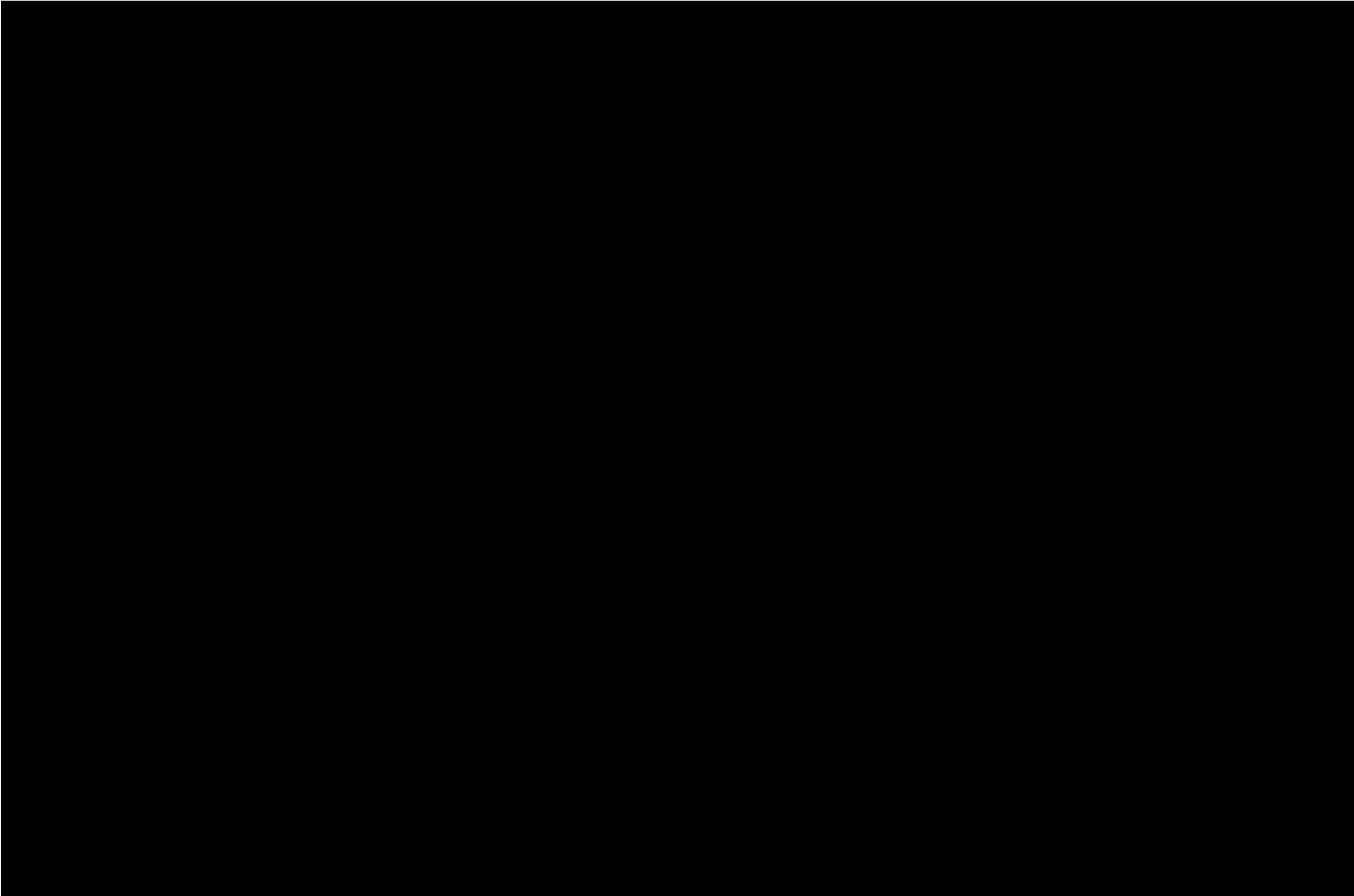
Can you think of any
other industry sponsored
ads today?

thedavidbeckhamacademy.com
 Goal by Beckham.
 Body by milk.
 Heads up. The protein in milk helps build muscle and some studies suggest teens who choose it tend to be leaner. Staying active, eating right, and drinking 3 glasses a day of lowfat or fat free milk helps you look great. So grab a glass and get in the game.
got milk?
www.bodyformilk.com

Milk your budget.
 Investing in your health always pays off. That's why I drink lowfat milk. Even at today's prices, an 8-ounce glass of milk only costs about a quarter, which is a great value when you consider that milk is one of the most nutrient-rich items in your grocery cart.* So drink up. You can't afford not to.
got milk?
whymilk.com

*Based on August 2008 USDA and BLS nationwide grocery surveys for the average price of a glass of milk. Milk content is not an indicator of milk processing.

“got milk?”
 (National Milk Processor Board)



High fructose corn syrup “Sweet Surprise”
(Corn Refiners Association)