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## **A new way of living: Maximilian Bircher-Benner (1867-1939)**

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## MAXIMILIAN BIRCHER-BENNER (1867–1939)

At the dawn of the 20th century,  
Maximilian Bircher-Benner  
opened a sanatorium in Zürich

to heal the sick through healthy eating. His ideas  
would influence nutrition for decades and give rise to  
an icon of Switzerland – muesli.



### E. WOLFF

Maximilian Bircher-Benner counts among the best-known and most influential Swiss physicians of the 20th century. But how did he influence medicine? Discovering a disease? Inventing a new and effective therapy? No, his influence was quite different. His most visible impact was beyond medicine: it was on menu cards, shop shelves and breakfast buffets all over the world, where his Bircher-muesli, müssli, müsli, muesli, museli (or however it is differently spelled around the globe) changed dietary habits of millions and millions. Next to cheese and mountains, muesli (which means 'little mush') counts among the best-known things attributed to Switzerland.

Today, a 'muesli' is commonly understood to be a mixture of basic ingredients like cereals, milk or yoghurt and some fruit – dried or fresh. It is typical modern food. It is convenient, for a quick breakfast or snack, made from ready-made cereal mixtures bought in the supermarket. It is also a very modern dish since it can be made for individual interests and tastes: for sportspeople, for children, for organic food devotees or gourmets. Muesli remains popular today largely because it tastes like a healthy option.

Bircher-Benner was neither a chef nor a marketing consultant for a food manufacturer. In the beginning, muesli was quite different – its recipe, its image, its purpose, its consumers, and even its name. Bircher-Benner named his creation *Apfel-diätspeise* (apple dietary dish). Its most crucial ingredients were Bircher-Benner's dietary ideas.

At the end of the 19th century he studied medicine at the University of Zürich.

After the first years of his medical practice, Bircher-Benner converted to naturopathy and temperance and focused more and more on the importance of nutrition for a healthy life. However, he was definitely not a pioneer in

Patients were trained to conduct a strict regime, constantly practicing self-control

this respect. It was a time when naturopathic ideas were gaining popularity, in parallel with and as a reaction to developments in such fields as bacteriology, surgery and laboratory research. Vegetarianism was the antithesis of the prevailing Justus von Liebig theory of protein (which practically meant: meat) as being crucial for healthy nutrition. Bircher-Benner radicalized vegetarian ideas to the propagation of uncooked food: the more both healthy and ill people would eat raw food the more their state of health would be stabilized. He was not the first to do this but he became the most famous of what in German is called a *Rohkostapostel* (an apostle of raw food) – with all the ironic undertones of this term.

### Fresh Thinking

Raw food is not everybody's favourite. Bircher-Benner's aim was to create a raw dish that both contained the most important foods and was attractive to eat – even for the toothless. So muesli's most important ingredient was absolutely fresh grated apple. In the 1940s, when muesli had developed to be a Swiss national dish, one of Bircher-Benner's sons, Ralph, complained about restaurants still serving in the evening muesli that had been made in the morning.

The grated apple had to be mixed with some oat flakes and sweetened condensed milk, a very popular Swiss dairy product of that time and still available today.

# A NEW WAY OF LIVING

Finally, lemon juice and chopped nuts were added. The original muesli would not have won a food beauty contest, but even to a sceptical muesli-eater the taste would have been respectable.

Today, a typical dietician would argue for the health value of the original muesli on the grounds of its vitamins, low calories and cholesterol and high fiber content. Not so Bircher-Benner. Among his arguments one was prominent: in his eyes, raw food contained a high level of energy taken from solar light. This energy was lost by cooking or having been digested by animals. This is why, for Bircher-Benner, meat was of especially minor value: in his eyes it had lost its energy twice – once when the animal digested the plant and once when the animal's meat was being cooked.

When Bircher-Benner presented his ideas to his non-sectarian Zürich colleagues, he more or less lost his reputation as a serious academic. It was not until the late 1920s and 1930s that he achieved broad popularity and became an authority in nutrition and healthy living in unconventional medicine circles of the time.

For Bircher-Benner, muesli was not a convenient breakfast dish or something swallowed for a hurried lunch between appointments. It was part of a strictly fixed health regime and a structured daily schedule. Muesli was meant to be served as a starter for every menu. Breakfast, lunch and dinner were part of a tight timetable of healthy living. According to Bircher-Benner's regime, which was

called *Ordnungstherapie* (order therapy), one had to get up at 6 am and take a stroll before breakfast. One should stay out in fresh air working or strolling as much as possible during the day and avoid indulgences like coffee, alcohol or tobacco. At 9 pm one should go to bed and turn down the light at 9.30 – at the latest.

A regime like that had to be exercised and internalized. For this purpose Bircher-Benner founded a sanatorium in which the patients were under supervision more or less the whole day. In 1904 he moved his facility to a new building on the famous Zürichberg, on a paradise-like piece of land with a marvellous view over Lake Zürich to the Swiss Alps. Soon patients flooded his Sanatorium Lebendige Kraft (Vital Force Sanatorium), hoping to get rid of their neurasthenia, obesity, constipation or depression.

The Lebendige Kraft became one of the most renowned places for healthy living in early 20th century Europe, and a growing number of celebrities and wealthy people stayed there. Guests included art celebrities like Yehudi Menuhin and politicians like Sir Stafford Cripps, Habib Bourgiba and Golda Meir. Thomas Mann, German literate and later Nobel Prize laureate, took his cure at the sanatorium in 1909 and in a letter he named it a '*Hygienisches Zuchthaus*' (which could be translated as 'health jail'). However, patients subjected themselves to the therapy regime completely voluntarily.

Bircher-Benner's sanatorium did not stand alone, it was a part of an early multimedia popular health movement. This consisted of an idea, a simple message (raw food) that could be identified with a popular person (Bircher-Benner) and a symbolic practice (eating muesli). It had a concrete center (the sanatorium) and was publicized through various media: a popular monthly journal (*Der Wendepunkt*), brochures that sold over 100,000 copies, self-help books and exhibits. Health

campaigns in later decades – Jane Fonda's workout, for example – were in principle based on a similar concept.

Years before the rise of the Lebendige Kraft in Zürich, in the United States a sanatorium with a similar reputation could be found. The American Seventh-Day Adventist physician John Harvey Kellogg (1852–1943) had much in common with Bircher-Benner – except the idea of raw food, as can be seen by the cornflakes developed by him and his brother. Kellogg's sanatorium in Battle Creek,

Michigan, was also meant to internalize what its founder saw as a healthy life: vegetarian diet, asceticism, exercise – and enemas to clean the bowels. T.C. Boyle immortalized Kellogg's ascetic sanatorium in his novel *The Road to Wellville*.



### Original muesli recipe

- 1 tbsp. of rolled oats, left to soak in 3 tbsp. of cold water for 12 hours
- 1 tbsp. of sweetened condensed milk
- 1 tbsp. of lemon juice
- 1 large or 2 small apples, freshly grated with the skin
- 1 tbsp. of ground hazelnuts or almonds



An apple a day: Workers at Bircher-Benner's sanatorium prepare original-recipe muesli, which was mainly mashed apple.

Article continues on next page



What the Lebendige Kraft and Kellogg's sanatorium have in common is that they both were places where patients were trained to conduct a strict regime, constantly practicing self-control and focusing on the health of their body and mind. This phenomenon is still seen in today's wellness practices, where it is commonly described as 'healthism'. As today, Bircher-Benner's numerous patients were practicing healthism without any compulsion from outside but nevertheless influenced by the presence of a higher authority, personified in Dr. Senior, as Bircher-Benner was called inside the Lebendige Kraft. The French sociologist and philosopher Michel Foucault described this phenomenon as 'governmentality', and saw it as a crucial factor in making modern societies work.

### Medicine in the Media Age

To conclude: in which way did the Swiss physician Maximilian Bircher-Benner have an influence on medicine? It was not his somehow weird theory of nutritional energy from solar light, which had never been broadly accepted. Even if he promoted an ideal dietary plan that has some similarities to the ones of today, there is no direct line between the two, since he promoted raw food for partly different reasons. His nutritional eponym in the German-speaking world – Bircher muesli – is less and less known, while muesli's recipe and image have substantially moved away from the original form. However, Bircher-Benner, like John Harvey Kellogg and others, had a remarkable influence on medicine in a broader sense. His ideas of *Ordnungstherapie*, with its strict health regime, his internationally renowned sanatorium to practice this regime and a multifaceted set of mass media to promote it established an early and well-known platform of modern popular health practices, for better or for worse. Remember this the next time you bite into an apple instead of a steak.

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# The

*Up to the 1870s operative surgery hardly existed and was, in most places, a dirty and brutal business. Infections were rife and septic bleeding common. But in Bern a Swiss surgeon was developing a careful, precise technique that would revolutionize operations forever.*

### U. TRÖHLER

In 1909, the eminent Swiss surgeon Theodor Kocher delivered his lecture as that year's Nobel laureate in Medicine or Physiology. In his oration, he discussed the rapid progress made in previous years, saying: 'In the great majority of so-called internal diseases a surgical treatment crowned with the most splendid curative successes has been made possible. Within less than half a century, it has become possible to expose all organs of the body – brain and heart not excluded – without danger, and to carry out the necessary surgical interventions on them.'

Indeed, when Kocher had made his career choice in the middle of the 19th century, surgery was undergoing a radical and exciting period of change. In 1846 and 1847 inhalation anesthesia with ether and chloroform, respectively, had started their triumphal march around the world. A decade later, Rudolf Virchow proposed the doctrine of the cellular origin of diseases, providing the theoretical basis for interventions in all bodily cavities, and in 1867 Joseph Lister first published on his antiseptic tech-

niques. Surgery was developing from a craft into a science and would, in the following decades, become one of the most active and successful fields of medicine (lacking such tools as hormones, antibiotics and vitamins, internal medical treatments of the time were restricted to diet, bed rest and herbal remedies).

### Early Years

Theodor Kocher, the second of six children of an engineer father and a deeply religious mother, was born in Bern on August 25, 1841. He studied medicine in Bern and Zürich, where he was also taught by the surgeon Theodor Billroth. After his university studies, Kocher broadened his horizons by visiting leading surgical clinics throughout Europe. He visited Berlin and London, and – being fluent in German, French and English – was able to meet with such important figures as Rudolph Virchow, the pathologist, and Thomas Spencer Wells. The latter he had witnessed performing Switzerland's first ovariectomy (oophorectomy) in Zürich. Kocher ended his tour in Paris where he was not impressed by the dirty surgery he saw.

Upon his return to his hometown, he became resident in the department of surgery at the University of Bern. In 1872, at just 31 years of age, he was appointed Chair of Surgery. Deeply rooted in his native Bern, in later life he would turn down opportunities of chairmanships in major cities of German-speaking Europe, including Prague, Vienna and Berlin.

Kocher's meticulous nature and zeal for perfectionism were perfectly suited to the challenge of improving surgery. For one,

despite the basic advances mentioned, hospital infections and septic bleeding were still commonplace. Unlike most surgeons of the time, who saw speed as a sign of operative finesse, Kocher developed a slow, methodical technique where precision was key. He saw painstaking hemostasis as of critical importance. Kocher rejected the then common technique of mass ligation

of the arteries and developed 'Kocher clamps' for use as hemostats. From the mid-1880s, based on animal experiments by the Bern physiologist Hugo Kronecker, Kocher combated 'shock' during surgery by administering warm 'physiological' saline intravenously. These are just two points of Kocher's system of 'safe' surgery, described in five increasingly voluminous German editions of a textbook on surgical operations (1892–1907), which was eventually translated into six languages.

Kocher's surgery, like that of most of his contemporaries, was initially based on pathological anatomy and aimed to simply remove diseased tissue. However, in his later period, he began to foster 'physiological' surgery, aiming not just to remove the diseased parts but, when doing so, attempting to preserve or to restore bodily functions.

In these buoying decades Kocher was able to contribute significantly to domains which have long since become specialties (see table). In addition to his work in general surgery, he also made advances in asepsis, anesthesia, endocrinology, neurology and neurosurgery. He invented instruments, a high-pressure sterilization device, a mask for inhalation anesthesia, and, above all, many specific operative procedures that are still called by today's surgeons by his name.

Kocher's innovations and masterly technique turned his clinic in Bern into a world-renowned center of excellence. In themselves his advances in surgical methods would have been enough to earn him name recognition from every student of surgery the world over, but Kocher will forever primarily be linked with his insights into a critical gland that, during his time, was so enigmatic that physiologists generally thought it had no function at all – the thyroid.

### The Thyroid

From the 1830s onwards, surgeons and physiologists in many countries removed the thyroid gland from various species of animal to see what happened. The results were ambiguous: since neither antiseptics nor the existence of the parathyroid glands were known, it was not possible to know

‘Kocher aimed not just to remove diseased parts, but to preserve and restore function’