several hundred miners and found that those who had remained healthy after sixteen years tended to have much better nasal filtration than those who had fallen ill from silicosis. He also found that "mouth breathers" were more likely to contract the disease than "nose breathers." The Dortmund professor concluded that nasal filtration was probably the single most important factor predisposing an individual to silicosis, and he recommended that only persons found to have good dust-capturing capacity be allowed to work in trades where silicosis was a danger.[49] The device was apparently widely used, though not everyone agreed on its ability to identify susceptible workers.[50]

There are many similar cases of predisposition screening from this era. In 1939, when scientists from Berlin's Institute for Radiological Research conducted experiments on the human response to ultraviolet radiation, they deliberately selected "darkly pigmented brunettes" on the grounds that such people would be less susceptible to the harmful effects of the rays.[51] Miners were regularly X-rayed for early signs of lung disease, and suspect workers were dismissed. This was consistent, as we shall see, with a paternalistic philosophy that saw workers as abstract inputs in the production process (see chapter 4). The point in most such efforts was to adapt the worker to the workplace, rather than vice versa.

Racism played an important role in conceptions of who was vulnerable to cancer and who was not—and not just in Germany. An idea commonly heard in occupational health circles even after the war was that people of darker complexion were better suited for work in cancerous industries. Wilhelm Hueper, the American pioneer of environmental carcinogenesis and a guiding light for Rachel Carson, suggested in his 1942 magnum opus that "colored races" were "markedly refractory to the carcinogenic effect exerted upon the skin by tar, pitch, and mineral oils." Hueper argued that "the natural oiliness of the skin of Negroes seems to protect their skin against the irritative and carcinogenic action of many industrially used chemicals, as occupational dermatitis and cutaneous cancer is rarely seen in Negroes." The German expatriate admitted that the entire question of "racial resistance" was controversial and

in flux, illustrating this with the example of changing views on the rarity of penile cancer among Jews. While this had originally been considered a racial characteristic, the view now accepted by "the great majority of investigators" was that the rarity was the result of the practice of circumcision.[52] Hueper nonetheless remained convinced, however, that Africans were physically less vulnerable to occupational cancers of the skin. As late as 1956, he was claiming that dark-skinned persons were more appropriate choices for work in industries with a substantial cancer danger[53]—a view at odds with the increasingly antiracialist ideas of mainstream American social science. Hueper successfully defended himself against the charge that he was a Nazi—along with charges that he was a communist—but his views on race remained strikingly similar to those of his former compatriots across the Atlantic.

Nazism transformed German cancer research and policy in many different spheres: in the language of research, in concepts of causality, in the bolstering or banishment of individuals and institutions, in the kinds of questions asked and the day-to-day ways patients interacted with their doctors. Nazism privileged the racial, the radical, and the rapid; Nazi policies would survey, sort, and screen to an extent never seen before, fighting carcinogens and cancer carriers and even "cancer fears" with the goal of creating a secure and sanitary utopia. Hans Auler, the Berlin professor who climbed in the cancer research ranks and managed to catch Goebbels's eye, saw the Nazi regime itself as anticarcinogenic:

> It is fortunate for German cancer patients, and for anyone threatened by cancer, that the Third Reich has grounded itself on the maintenance of German health. The most important measures of the government—in genetics, education, sports, postgraduate service, physical education in the Hitler Youth, SA, and SS, marital loans, home hygiene, settlements, work service, and so forth—can all be regarded as prophylactic measures against cancer.[54]